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## A

## SIMPLIFIED GRAMMAR

## OF THE

PALI LANGUAGE

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BY
E. MÜLLER, Рн.D.

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TO

# REINHOLD ROST, LL.D., Рн.D. 

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AS A TOKEN OF SINCERE GRATITUDE AND FRIENDSIIP.

## PREFACE.

In sending the present essay of a Pâli Grammar to the press, I feel bound to say a few words of explanation as to the plan I have followed. First of all, I must state that it was not my intention to give a complete Grammar of the Pâli Language, as this can only be done when all the principal books of the Buddhist Canon will have been published; nor was it my intention to write a Comparative Grammar of Indian vernaculars, as for this purpose the space granted to me would have been too small. I only intended to help the students of Buddhistical literature, by collecting the idiomatical peculiarities of the sacred language, comparing it chiefly to Sanskrit, and in a few cases also to the other Indian vernaculars. As the publication of Pâli texts has taken so wide dimensions during the last ten years, I thought it would not be out of place to consider and work out the new materials that have come into our possession through these books, mostly unknown to Childers and the others who made Pâli Grammar an object of their studies. Even E. Kuhn, whose "Beiträge zur Pâli Grammatik" have been of great help to me, and whose plan I followed almost throughout my book, only
worked from a comparatively small number of texts, and just the oldest and most interesting, like Vinaya and Jâtaka, were all but unknown to him.

It would be rather out of place in an elementary Grammar to enter into a long discussion about the age and origin of the Pâli language. A few words on the subject will be sufficient: Kuhn, following Westergaard, holds Pâli to be the vernacular of Ujjein, the capital of Mâlava at the time when Mahinda, the son of Asoka, took the sacred Canon with him to Ceylon (Beiträge, p. 7). On the other hand, Oldenberg, rejecting that tradition, considers Pâli to be the original language of the Kallinga country (Vinayapitaka, Introduction, p. liv). He compares the language of the large inscription at Khandagiri (Cunningham, Corpus Inscriptionum, i. 98), and finds only very little difference between this and the Pâli. From this he concludes that, there must have been, about a hundred and fifty years before Mahinda, a frequent intercourse between Kalinga and the island; in fact, that the religion, together. with its language, was brought over from there to Ceylon. I had myself formed a similar idea, independently from Oldenberg, by a careful examination of the first settlements of the Gangetic tribes in Ceylon (see my Report II. to the Government of Ceylon, reprinted Ind. Ant. IX. 9) ; and, recently, Mr. Nevill, in the Journal of the Ceylon Branch of the Royal Asiatic Society, has pointed out that the ancient civilized and populous district of Ceylon, the so-
called Kalâwa, is not to be looked for at the south coast near Galle, as most people believe, but in the northwestern district of the island, which is now almost a desert. We therefore all agree that the Aryan immigrants did not come by sea from Bengal, in which case they would have landed somewhere at the east or south coast, but that they crossed over from some port in Southern India; and, under these circumstances, it is not at all unlikely that the point from which they started may have been the kingdom of Kâlinga. To the person of Mahinda we need not attach much importance from a chronological point of view, perhaps not more than to the person of Vijaya, the first Gangetic immigrant in Ceylon according to tradition.

About the age of the Pâli language it is even more difficult to form a certain opinion than about its native country. The late R. C. Childers, in the Preface to his Dictionary, p. ix., attributed a very high antiquity to it, with especial reference to an inscription on the Sthûpa of Bharhut, which contains a quotation from Cullavagga, vi. 4 . This argument, however, is not conclusive, as already P. Goldschmidt pointed out in the Journal of the Ceylon Branch of the Royal Asiatic Society for 1879. It was generally expected that we would get some help from the Ceylon inscriptions for fixing the age of the Pâli language, but unfortunately this expectation has not been fulfilled, as all those inscriptions from which we might derive an argument are not sufficiently dated. Real Pâli inscriptions
have not been found in Ceylon-not more than in Cambodia. Those that approach nearest are almost identical in their language with the above mentioned Khandagiri inscription. There is, for instance, the one at Kirinde (No. 57 of my Ancient Inscriptions in Ceylon), which, for palæographical reasons, I have assigned to the first or second century A.D., about the time when, according to tradition, the doctrines of Buddhism were first reduced to writing in Pâli. The language of this inscription agrees in many points with Pâli, but it is too short, and the date is too uncertain that I could follow Goldschmidt, who felt inclined to make use of it for fixing the age of the sacred language. Neither can I agree with Kern. who holds Pâli to be an artificial language altogether. It is certain that some considerable time must have elapsed before the Pâli recension of the Canon was completed, and that through the continguity of cognate vernaculars, like the Mâgadhî, a number of words and forms found their way into Pâli which originally did not belong to it: in this way the socalled Mâgadhisms, which Kern induces to prove the artificial character of the language, are easily explained. In spite of these, Pâli conserved a certain purity during the whole middle age, and even late texts like the Dâthâvamsa and Attanagraluvamsa (thirteenth century), although they introduce a large number of compounds after the Samscritic fashion, are comparatively free from dialectic peculiarities. Not before the time when the second part of the Mahâ-
vamsa was composed we find a wholesale import of Sinhalisms into the language, scarcely disguised by Pâli terminations, as, e.g., mahâlâno, 'Chief Secretary,' translated back from the Sinhalese mahâlaenan.

I have only occasionally attempted in this book to distinguish between the different periods of the language. When the student will have overcome the first difficulties, he will find all the necessary information on this subject in Fausböll's Introduction to "Ten Jâtakas" and Trenekner's "Pâli Miscellany." I may say here so much, that on the whole the forms of the Sinhalese MSS. are older and more genuine, while the Burmese often replace them by more modern, more common, or more regular ones. I reserve for another occasion the interesting task to prove this by comparing a certain number of MSS., especially of grammatical texts.

Another part of the Grammar, which is totally wanting in my essay, is the Syntax; but here I hope that the classical languages, with which no doubt nearly all my readers are acquainted, will fill up the gap. Sanskrit, so to say, has no Syntax at all, but expresses all the relations in a sentence merely by compounds. This way, however, was given up at an early date by the Indian vernaculars, and a form of construction was introduced which bears a close resemblance to the Syntax of the classical languages. Under these circumstances, I have thought it best, as I had no space to give a complete Syntax to add at the end
the Grammar a short Jâtaka, with an analysis that might help the student to understand the Pâli construction.

The texts I principally took my examples from are the historical books Dîpavamsa and first part of the Mahâvamsa, for which I compared the new edition published by Sumangala and Baṭuwantudâwa in 1880; besides the Vinaya, the three published volumes of the Jâtaka, the Milindapanha, and the first year's publications of the Pâli Text Society, including Anguttara Nikâya, Buddhavaṃsa and Cariyâpitaka. The second year's publications reached me when the book was already in the press, but I availed myself of the opportunity to mention some particularly interesting forms from Thera- and Therîgâthâ and Khuddasikkhâ. Of Fausböll's Sutta Nipáta I could use for the Grammar only the stanzas given in the foot-notes of his translation ("Sacred Books," vol. xiii) : the edition of the text came into my hands when I had very nearly done.

> E. MÜLLER.

Cardiff, June, 1884.

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## ABBREVIATIONS.

The abbreviations are the same as in Childers' Dictionary, and besides the following new ones :-

Ang. $=$ Anguttara Nikâya ed. Morris.
Ass. S. = Assalâyanasutta ed. Pischel.
Beitr. = Beiträge zur vergleichenden sprachforschung herausgeg. von Bezżenberger.
Bv. = Buddhavamsa ed. Morris.
C. = Cullavagga ed. Oldenberg.

Cariy. = Cariyâpiṭaka ed. Morris.
Dâṭh. = Dâṭhâvạ̣sa ed. Cumâra Swâmi.
Dhm. = Dhâtumañjûsâ ed. Baṭuwantudâwe.
Dîp. = Dîpavaṇsa ed. Oldenverg.
Gr. = Sept Suttas Pâlis ed. Grimblot.
Hem. = Hemacandra ed. Pischel.
It. = Itivuttaka.
I. O. C. $=$ India Office Catalogue.
K. Z. = Kuhn's Zeitschrift fûr vergleichende Sprachforschung.
M. = Mahâvagga ed. Oldenberg.
M. N. = Majjhima Nikâya.

Naigh. = Naighantuka.
P. M. = Pâli Miscellany, by Trenckner.

Pâīal. = Pâīyalacchî ed. Bühler.
Rûp. = Das sechste Kapitel der Rûpasiddhi herausgegeben von Grüwedel.
Saddhammop. $=$ Saddhammopâyana ed. Baṭuwantudâwe.
S. N. = Sutta Nipâta ed. Fausböll.

Samanta Pâs. or S. P. = Introduction to the Samanta Pâsâdikâ in the third vol. of Oldenberg's Vinaya.
Suttavibh. $=$ Suttavibhanga ed. Oldenberg.
Vinaya Texts $=$ Vols. xiii. and xvii. of Max Müller's Sacred Books.

## CORRIGENDA.

P. 24, line 10 from top: Vegha is, as Dr. Morris tells me, a mistake for vekha $=$ veshka, 'leathern strap.'
P. 25 , line 3 from bottom: A verb ussati does not exist. The correct reading is $\tilde{n}$ assati.
P. 112, line 5 from top: The ending $\hat{u}$ belongs to the third person plural.

## PÂLI GRAMMAR.

## § 1. The Alphabet.

There are three Alphabets in which Pâli manuscripts are written-the Sinhalese, the Burmese and the Kambodian. They all are derived from the Açoka Alphabet used in the ancient inscriptions of India, but represent a more current and an easier style of writing. The Devanâgarî Alphabet, which was used by Spiegel in editing his Anecdota Pâlica, is never found in Pâli manuscripts. We shall, however, for the convenience of those who have studied Samskrit, in the following table give the Devânagarî letters corresponding to the Sinhalese characters. Siuce Fausböll's edition of the Dbammapada, published in 1855, nearly all editors of Pâli books in Europe have made use of the Roman character, as being easier to learn and less tiring to the eye. Unfortunately, a uniform way of transcription has not yet been arrived at in Pâli, any more than in Samskrrit; but the method followed by Fausboll and Childers is now almost generally adopted, and shall also be used in this book.
I. Vowels.

$e=$ ए. $\quad 0=$ बौो.

## II. Consonants.

1. Gutturals. $\mathrm{k}=$ क. $\mathrm{kh}=$ ख. $\mathrm{g}=\mathrm{J} . \mathrm{gh}=$ घ.

$$
\dot{\mathrm{n}}=\boldsymbol{3} .
$$

2. Palatals.-c = च. $\mathrm{ch}=$ छ. $\quad \mathrm{j}=$ ₹. $\quad \mathrm{jh}=$ ю.

$$
\tilde{\mathrm{n}}=\text { ๆ. }
$$

3. Cerebrals.-t $=\boldsymbol{\tau} . \quad t h=\delta . \quad d \quad \mathbf{d}=\mathbf{3} . \quad \mathrm{db}=\boldsymbol{\sigma}$.

$$
n=\text { m. }
$$

4. Dentals. $-\mathrm{t}=\mathrm{\pi} . \quad \mathrm{th}=$ घ. $\mathrm{d}=$ द. $\mathrm{dh}=\mathrm{\varphi}$.

$$
\mathrm{n}=\text { न. }
$$

5. Labials. - $\mathrm{p}=\mathrm{\square} . \quad \mathrm{ph}=$ फ. $. \quad \mathrm{b}=$ व. $\quad \mathrm{bh}=$ भ.

$$
\mathrm{m}=\boldsymbol{म},
$$

6. Liquids. - $\mathrm{y}=\mathrm{य} . \quad \mathrm{r}=\mathrm{\tau} . \quad \mathrm{l}=$ ल. $\quad \mathrm{v}=$ व.
7. Sibilaints. $-\mathrm{s}=\boldsymbol{\text { स }} . \quad \mathrm{h}=\mathrm{Z} . \quad 1=\varnothing$ (Vedic).

Besides, there is the niggahita, corresponding to the Samsskrit anusvâra, and marked by a small circle in the middle of the line. It is always used at the end of words, and in the middle before a sibilant. Before another consonant the nasal of the corresponding class may be used instead.

## § 2. Pronunciation.

The Pronunciation is, on the whole, the same as in Samskrit. The vowels $a, i, u$ are short, the others are long : $e$ and $o$ are only long when they stand in an open syllable, viz., before a single consonant. When they stand before two consonants they are pronounced short, but are long metri causa.

The aspirates are pronounced like the corresponding surds with the addition of an $h$. Therefore th does not correspand to the English th, but rather to the German in Thun, That. $C h$ has the same pronunciation as the simple $c=$ English $c h$ in child.

It is very difficult for a European to pronounce the cerebrals or linguals correctly. In India and Ceylon the natives almost constantly express our dentals by their cerebrals in words taken over from our language. It seems, therefore, that our dentals agree more with their linguals in pronunciation than with their dentals. I have, however, not been able to mark in the spoken language any difference between the pronunciation of the dentals and of the cerebrals.

The nasals are pronounced according to the class to which they belong. The guttural nasal never occurs alone, but is always followed by an explosive of its class; it sounds like English $n g$ or $n k$ respectively. The palatal nasal sometimes occurs doubled when an assimilation has taken place ( $\bar{n} \bar{n}$ ), and then it has the sound of the Spanish $\bar{n}$ in doña, or of the French $g n$ in campagne. The dental nasal is exactly pronounced like $n$, and the labial like $m$.

The niggahita, or nasal breathing at the end of the word, is pronounced in Ceylon almost with the same force as a guttural nasal $=$ English $n g$ in king. Before other consonants it is only a representative of the nasal of the corresponding class, and is pronounced accordingly.

Compound consonants are almost regularly assimilated in Pâli. We thercfore do not require a table of the combinations of consonants similar to that which exists in the Devanâgarî Alphabet. The rukes according to which the assimilation takes place will be given in a special chapter, and the few groups
of compound consonants that still exist in Pâli will be added as an appendix to the Table of Alphabets.

The pronunciation is the same as that of the single consonants.

## § 3. Vowels.

The vowels found in Pâli are the same as in Samskrit, with the exception of the $r$ and $l$ vowels, and the diphthongs $a i$ and $a u$.

The $r$ vowel is mostly represented in Pâli by one of the other vowels:-
 tasita $=$ trishita, Dâth. iii. 44 ; maṭtha and matṭa $=$ mrishṭa, gaha $=$ griha, maccu $=$ mrityu.
(2) By $i$ in iṇa $=$ riṇa, 'debt;' kisa = kṛiça, 'lean ;' giddha $=$ gridhra, 'greedy;' miga $=$ mriga, 'deer;' $b h i s i ̂=b r i s i ̂, ~$ ' mat;' sigâla = çrigâla, 'jackal.'
(3) By $u$ in $u s a b h a=$ rishabha, 'bull ;' puthu = prithu, 'broad;' pucchati $=$ pricchati, 'to ask;' vutṭhi $=$ vrishți, 'rain.'
(4) By the consonant $r$ accompanied by the vowels $i$ or $u$, in iritvija $=$ ritvij, ' brahminical priest ;' rite $=$ rite, Kacc: 126 ; $i r u=$ ric in $i r u b b e d a=$ ṛigveda, rukkha $=$ vriksha, brûheti $=$ brimhayati ; the latter root takes also sometimes the vowel $a$, as in abbahati, Dh. 96 , and in the participle brahâ.
(5) By $e$ in geha, which is already found in Sameskrit.

The diphthongs $a i$ and $a u$ of the Samskrit become $e$ and $o$ in Pâli, that is to say, they are reduced from the second degree of vowel strengthening called vriddhi in Samskrit to the first called guṇa; this process is called vuḍ̆hi by the Pâli grammarians. Examples are Gotama= Gautama, Kondañña= Kaụṇ̣inya, Erâvaṇa = Airâvana, dvelhaka = dvaidhaka, metî̂ $=$ maitrî.

These diphthongs may, however, be further reduced to the simple vowels $i$ and $u$, in the same way as it is done with the original $e$ and $o$. We have mitti=maitrî, Jât. i.468; issariya= aiçvarya, ussukka = autsukya, Dh. 268.

The rules laid down by the grammarians concerning the use of the vudḍhi and of the simple vowel are very lax. Kacc., p. 214, prescribes the vuḍḍi before a single consonant, but at p: 219 he allows the forms with the simple vowel as well, e.g., abhidhammika, vinateyya, ulumpika.

There are also two instances where an $u$ derived from an $r$-vowel (see above, no. 3) becomes o by vuḍdhi, viz., pothujjanika, 'belonging to an unconverted person,' derived from puthujjana $=$ prithagjana and modanigika, 'one who beats the drum,' derived from mutinga = mridanga.

## § 4. Change of Vowels.

A short $a$ of the Samskrit is subject to different changes in Pâli. It may become:-
(1). $e$ in ettha $=$ atra, 'there,' according to Childers, and S. Goldschmidt's Prâkritica, pp. 21-23. Kaccâyana, p. 110, derives it from etatha by shortening of the syllable eta into $e$; but Hemacandra, i. 57 , has the right explanation. Similar forms are ubhayettha $=$ ubhayatra, ' on both sides,' given in the commentary, Dhp. p. 96, while the text at v. 15 has ubhayattha, hetthâ and hetṭhato, 'below' = adhastât ; pure, 'before,' with its compositions puresamana, 'the companion who precedes a bhikkhu;' purebhattam, 'before the morning meal ;' puretaram, Dh. 84, 135 ; antar in antepura $=$ antahpura, ' harem' (antopuram, Dh. 162, 291) ; antovatthumhi, Mah. 253 ; antaravatthumhi, Jât. i. 232; antorukkhatâ, Jât. i. 7; pheggu =
phalgu, 'empty.' In seyyâ = çayyâ, 'couch,' the change of $a$ to $e$ is effected by the following $y$, and the same has taken place in peyyâla = pariyâya, if the derivation given by Oldenberg, K. Z. xxv. p. 315, and Trenckner, Pâli Miscellany, p. 66, is correct.
(2) $a$ becomes $i$ in tipu $=$ trapu, 'lead,' kalimbhaka $=$ kaḍamba, 'point,' C. v. ii. 3; pilâla=palâla, 'straw,' Jât. i. 382; timisa $=$ tamasa, 'darkness,' Mil. 283, and timissâ $=$ tamisrâ, Jât. iii. 433 ; nilicchita $=$ nirashṭa according to Trenckner, Pâli Misc. p. 55. A great many more examples might be adduced for this change, which is a very frequent one in Yâli.
(3) $a$ becomes $u$ principally through the influence of a labial, that may stand either before or after the vowel, or even at some distance from it. Examples are sammuñjan̂̂ and sammujjanî, Jât. i. $161=$ sammârjanî, 'a broom ;' nib̈busitattâ $=$ nirvasitâtmâ, Grimblot, Sept suttas Pâlis, 23 ; nimujjati $=$ nimajj, 'to sink;' puthujja = prithagja, 'common,' Fausböll, Sutta Nipâta 171 ; paṇnuvîsati = pañcavîsati, 'twenty-five,' Jât. iii. 138. There are, however, also examples of this change where there is no labial contact, e.g. thunanti, 'they sound,' from stan (the participle nitthanamána occurs at Jât. i. 463, and nitthananta Jât. ii. 362) ; bhrûnahu = bhrûnahan, 'killing the embryo,' Fausb., S. N. 122 ; ajjuka $=$ arjaka, 'the white parnâsa;' âgu=âgas, 'sin ;' pajjuṇ̣a = parjanya, 'cloud ;' sajju $=$ sadyas, 'instantly;' sajjulasa $=$ sarjarasa, 'resin,' M. vi. 7. In usúyâ = asûyâ, 'envy,' and in kuñkutttha = kankushta, 'a sort of earth,' the change is due to the assimilation of the vowels.
(4) a becomes $o$ in sammosa = sammarsha, 'confusion,' Gr. 25, Mil. 266, anto $=$ antar, 'inside,' and its compositions, tirokkha $=$ tiraska, 'absent,' Suttavibh. i. 185.

Samskrit $\hat{a}$ is subject to the following changes :-
(1) It becomes $e$ in pârevata = pârâpata, 'pigeon' (pârâpata occurs at Jât. i. 242) ; mettika $=$ mâtrika, Cariy. i. 9, 11 ; khepeti $=$ kshapayati, from kshap, the causative of kshi according to Trenckner, Pâli Misc., p. 76, and Senart, Mabâvastu, p. 492 ; theto $=$ sthâtrí, Brahmajâlasutta, p. 5 ; seleti $=$ çâḍayati, 'to fall off,' Buddhavamsa i. 36 (usselheti, C. i. 13, $2=$ Suttavibh. i. 180, is a compound of this, and has nothing to do with ussolhi, as the translators of the passage would make out, Vinaya Texts, ii. 349). The change is effected by a $y$ standing before or after the vowel in âcera=âcârya, 'teacher,' Khuddasikkhâ xv., comp. Hem. i. 73 ; pâtihera (or pâtihîra) $=$ prâtihârya, 'a miracle;' nibbedheti = nirvyâdhayati, 'to transpierce,' Mab. 143.
(2) It becomes $o$ in tumo $=$ tmanâ, 'self,' C. vii. 2, 3, Oldenberg K. Z. xxv. 319 ; parovara = parâvara, from para + avara, ' perfect,' Fausb., S. N. 59, 193; doso=doshâ, 'at night ;' dhovat $i=$ dhâv, ' to wash.'
(3) It becomes $\hat{u}$ in some compositions with the root $g \hat{a}$, 'to go,' like addhaĝ̂, 'a traveller;' pâragи̂, 'one who ha's crossed to the other side,' probably through an intermediate o (see no. 2), as we have atigo, Dhp. v. 370 ; pârago, Mah. 60,250 ; vivarantagû, Jât. ii.'208. The sa'me change takes place in compositions with $j \hat{n} a \hat{a}$, 'to know ;' as, viñ $\tilde{n} \hat{u}$, ' clever ;' salbaññu, 'omniscient;' vadañ $\tilde{n} \hat{u}=$ vadanya, 'bountiful,' is clearly constructed after the false analogy of these forms, but has nothing to do with j $\tilde{n} \hat{a}$. Tadañ̃u, Saddhammopâyana, r. 177, is composed with $j \bar{n} \hat{a}$, and is different from tadañ̄a $=\operatorname{tad}+$ anya, occurring at v .149 of the same poem.

Samskrit $i$ is subject to the following changes :-
(1) It becomes $a$ in kâkaṇikâ = kâkiṇikâ, 'a small coin;' pathavî $=$ prithivî, 'the earth ;' pokkharaṇ̂̀ $=$ pushkariṇ̂, 'lotus tank ;' gharaṇ̂ $=$ gribiṇ̂i, ' wife,' M. viii. 1,12 ; patañga $=$ phaḍinga, 'a flying insect,' Dh. 412, Mil. 272 ; sâkhalya, 'friendship,' Childers s. v. sakhilu, and some futures like icchasaṃ, pamâdassam, mentioned by Trenckner, Pâli Misc., p. 75 . A doubtful form is ânañja, Jât. i. 415, ii. 325 ; Suttavibh. i. 4 ; Sâmaññaphalasutta ed. Grimblot, p. 143. A various reading is $\hat{a} n a n ̃ c a$, which is found besides in Mahâparinibbânas., p. 34, and Burnouf, Lotus, pp. 306, 467, 866 ; but Buddhaghosa, at Suttavibh. i. 267, explains it by ánejjappatte, acale, niccale and if this is correct it can have nothing to do with Saṃskrit ânantya, but must be derived from the Pâli root $i n j=$ Samskrit $i n g$, 'to move.' Comp. Childers, s. v. ânejjam, and p. 454, and Senart, Mahâvastu, p. 399.
(2) It becomes $e$ in etta, 'so much' = Skt. iyant, Senart, Mahâvastu, p. 384 (but not etto, 'hence,' which is derived from etta $=$ eta, Goldschmidt, Prâcritica, p. 21-23) ; vihesâ $=$ vihị̣sâ, 'vexation,' and the verb viheseti, 'to annoy,' Jât. iii. 295 ; vehâgamana = vihâgamana, 'coming through the air,' Mah. 157; vematika = vimatika, 'inconsistent;' vemajjha $=$ vimadhya, 'the middle $;$ 'Vessabh $\hat{u}=$ Viçvabbû, 'a name of Buddha ;' mañjeṭtha = mañjishṭha, 'light red ;' keraṭika, Jât. i. 461, and kerâtiya, Jât. iii. $260=$ kirâṭa, 'hypocrite,' (comp. Indian Antiquary, vi. 40) ; esikâ= ishîkâ, ' pillar' (but îsikâ, Sâmaññaph. S. ed. Gr. p. 144), Brahmaj. S 18, neuter pl. esikâni, Jât. ii. 95 ; terovassika, 'more than a year old ' $=$ Skt. tirovarshika, like Vedic tiro ahnya, Morris' Report on Pâli Literature, p. 6 ; dvebhâga, dvebhâva, dvebhûmaka $=$ dvibhâga, dvibhâva, dvibhûmaka; pettápiya $=$ pitrivya,

Trenckner, Pâli Misc. 62 ; mâtâpettibhara, 'supporting one's parents,' $=$ mâtri + pitribhara, tekiccha, 'curable,' from cikitsâ, etṭhi = ishṭi, 'wish,' Khuddasikkhâ. A difficult form is the adverb seyyath $\hat{a}$, 'just as,' in a comparison, which is explained in different ways by the grammarians. Trenckner, Pâli Misc. p. 75, explains it as a Magadbizing form, corresponding to the Skt. tadyathâ, and he is followed by Senart, Mahâvastu, p. 415, woo adduces the corresponding form of the northern Buddhists sayyathidam, already mentioned by Leion Feer, Etudes Bouddhiques, p. 313. I believe this explanation preferable to that of E. Kuhn, who considers it as a potential âtmanepadam of the root as 'to be.' A form seyathâ occurs in the inscription of Bhabra, Cunningham, Corpus Inscriptionum Indicarum, p. 111. A similar change of $a$ to $e$ is in yebhuyya $=$ yad + bhûyas, Instr. yebhuyyena, 'generally,' 'mostly.' The corresponding form of the northern Buddhists is yobhûyena, Senart, Mahâvastu 422.
(3) It becomes $u$ in kukkusa $=$ kiknasa, C. x. 27, 4, kukku $=$ kishku, 'measure of length.' M. vii. 1,5 ; nicchubhîyati $=$ kshiv, 'to spit out,' Mil. 188 ; also written nichubhati, Carivâp. ix. 23, Bv. xi. 15, Jât. iii. 512, 513 ; participle, nicchuddha, Mil. 130, Dh. 8, 202 ; râjula = râjila, 'a lizard ;' geruka = gairika, 'red chalk,' M. i. 25, 15.
(4) It becomes $o$ in onojeti, 'to dedicate,' M. i. $22,18=$ avanejayati according to Kern, Buddhism, p. 92.

Samskrit $\hat{\imath}$ is subject to the following changes:-
(1) It becomes $a$ in kosajja, 'idleness' $\doteq$ kausîdya ; bhasma $=$ bhîshma, 'dreadful,' C. vii. 4, 8 (another form bhesma occurs Ab. 167, and bhisma in the Mahâsamaya ap. Grimblot, p. 288).
(2) It becomes $\hat{a}$ in tiracchâna $=$ tiraçcîna, 'an animal.'
(3) It becomes $e$ in khela = krîḍâ, 'play,' Dâṭh. i. 41, Pischel Beitr. iii. 254 ; kelâyatha, Mil. 73, âvelâ = âpîḍa, 'a garland;' Prâk. âmela, Hem. i. 105; ereti, ' to utter,' Dh. v. 134 ; according to Trenckner, Pâli Misc. p. $76=\hat{\text { ireti }}$. $E$ for $\hat{\imath}$ is found frequently in derivative syllables, as in the absolutive gahetvâ for grihîtvâ, in âjâneyya for âjânîya, and similar forms given by Kacc. p. 196. There is a present seyyasi = çîryasi, from çar, 'to throw down,' occurring only in this form Jât. i. 174, Dh. 147. The commentary explains it by visinnaphalo hoti. Çrî becomes se in the names of two plants, sepanṇ̂i $=$ çrîparnî and sephâlikâ = çrîphâlikâ.
(4) It becomes $u$ in the root $t h u b h=$ shṭhîv, ' to spit;' also written thuh, as in nitthuhati, S. i. 132 ; nuțṭhuhati, C. vi. 20, 2, M. viii. 1, 11. The form nitṭuh occurs also in Prâkrit, Deçînâmamâlâ, iv. 41.

Samskrit $u$ is subject to the following changes :-
(1) It becomes $a$ in sakikhali = çashkuli, Jât. ii. 281, Suttavibh.i. 55; agaru and agalu=aguru, 'Agallochum;' dudrabhi $=$ dundubhi, 'drum,' M. i. 6, 8 ; vâkarâ or vâliara, Jât. iii. $541=$ vâgurâ, 'net ;' phallati $=$ phull, 'to bear fruit,' and pharati = sphur, 'to flash.' Bâhusacca is derived by Childers from bâhuçrutya, by Fausböll from bâhusmârtya; the analogy of mutthasacca, however, adduced by Childers, points to the latter etymology. Rathesabha, 'king,' is according to Trenckner, Pâli Misc. p. $59=$ ratheçubh ; according to Senart, Mahâvastu, p. $427=$ ratha + rishabha.
(2) It becomes $i$ in dindima $=$ dundubhi, 'drum,' Dîp. 96 ; khipat $i=\mathrm{kshu}$, 'to sneeze ;' muditâ $=$ mudutâ, Senart, Mahâvastu 629. The identity of sippî and çuktî, 'pearl oyster,' assumed by Trenckner, Pâli Misc. 60-75, remains doubtful.
(3) It becomes o chiefly before a double consonant, as in okkâ = ulkâ, 'torch,' Jât. i. 34; pottha = pusta, 'a modelled figure,' Jât. ii. 432, and its derivative, potthalikâ or potthanika, M. vi. 23, 3, C. vii. 3, 4; Prâk. puttaluâ, Pâīyalacchî 117 ; vokkamat $i=$ vyutkramati (comp. Pischel's remarks to Hem. i. 116); pâmokkha = pramukhya (pâmukkha, Jât. i. 371). There are, however, also instances of the change before a single consonant, as kolañna = kulaja, 'of good family,' Mil. 256 (for the termination comp. aggañ̄a and Senart's remarks Mahâvastu, p. 617); kooliya, Jât. iii. 22, and kolîniya, Jât. ii. 348 (if the reading koleyya is not to be preferred, kulina occurs at Mah. 245) ; and kolaputti, which is not to be considered as a $v u d d h i$ with Trenckner, Pâli Misc. p. 64. Pâli koṭi represents the Skt. kuṭi as well as koṭi, Lotus 432 ; anopama, Jât. i. 89 ; Mahâvastu 511 is = anupama, Mah. 240.

Samskrit $\hat{u}$ is subject to the following changes :
(1) It becomes $\hat{a}$ in masâraka = masûraka, 'a sort of bed,' C. vi. 2, 3. Bhâkuṭi, Suttavibh. i. $181=$ bhrûkuṭi, 'eye-brow,' most probably goes back to the Skt. bhrakuṭi or bhrikuṭi. The common Pâli word bhamu is not, as Childers explained it, a careless pronunciation of bbrû, but an abbreviation of bhamuka or bhamuha $=$ bhrûmukha, as is shown by the Prâk. bhamayâ, Hem. ii. 167. The Sinhalese baema also goes back to this form.
(2) It becomes $\hat{\imath}$ or $i$ in bhîyo, bhiyyo $=$ bhûyas, and in niyura $=$ nûpura, 'bracelet,' which, however, might stand for nidhura.
(3) It becomes o in oja = ûrjas, 'strength,' Jât.i. 68, Dh. 132; onavîsativasso $=$ ûnav ${ }^{\circ}$, 'less than twenty years old.'

Saṃskrit $e$ is subject to the following changes:-
(1) It becomes $a$ in milakkha $=$ mleceha (comp. K. $\mathrm{Z} \times \mathrm{xv}$. 327), and in some verbal forms like akaramhasa, Dh. p. 147.
(2) It becomes $\hat{a}$ in kâyûra = keyûra, 'bracelet,' C. v. 2, 1, Jât. iii. 437.
(3) It becomes $i$ before double consonants, as in pasibbaka $=$ prasevaka, 'bag'; pațivissaka $=$ prativeçaka, 'neighbouring;' $u b b i l l a=$ udvela in ubbillabhâva, 'lengthiness,' Saddhammopâyana 136 ; but also before single ones, as abhijîhana from jeh, Jât. 546, v. 49, according to Trenckner, Pâli Misc. 78; apavinati, Jât. 409, v. 4, from ven; pahinaka and pahenaka, 'offering,' Prâk. paheṇaya, Pâīyal. 206.
(4) It becomes o in mañkato = matkrite, Mil. 384; and in atippago $=$ atiprage, ؛ too early,' corresponding to atiprâgah of the northern Buddhists, Mahâvastu 418.

Samskṛit $o$ is subject to the following changes:-
It becomes $u$ before a double consonant, and $\hat{u}$ before a single, as in junh $h \hat{a}=$ jyotsnâ, 'a moon-lit night;' tutta $=$ tottra, 'a pike used to guide an elephant, Cariy. iii. 5, 2; tadûpiya, 'suitable, corresponding,' which is not = tadrúpya, as Childers suggested. Trenckner, Pâli Misc. p. 77, identifies it with Skt. tadopya, which is derived from the root vap in composition with $\hat{a}$, and ascribes the change of $o$ to $\hat{u}$ to the following $i$; but Senart, Inscriptions de Piyadasi i. 188, and Mahâvastu 493, takes it as a compound of tad + opaya. Visûka = viçoka, 'spectacle ;' dûbha = droha, 'deceiving,' Mab. 49; khajjûpanaka, Trenckner, Pâli Misc. 59, for khajjopanaka $=$ khadyota, 'the fire-fly;' ârâgya $=$ ârogya, 'good health,' M. N. 66. Also an o contracted from ava is subject to this change, as in ussâva = avaçyâya, 'dew;' $u j j h a \hat{a}=$ avadhyâ, 'to blame;' and $u d ̣ d e t i=o d d e t i=$ ava + dî̀,
according to Morris, Anguttaranikâya i. 24, 4. Comp. the remarks of Fausböll, Two Jâtakas 13, the verb niddâyati, Jât. i. 215, nidḍâpeti, C. vii. 1, 2, identified by Oldenberg with nirdâtâ, Manu vii. 110. An example of an o changed to $u$ before a single consonant is $u k k u s a=u t k r o c ̧ a, ~ ' t h e ~ o s p r e y, ' ~$ only written $u k k \hat{u} s a$ at Jât. 486, v. 2, where the $\hat{u}$ is required by the metre.

## §. 5. Change of Quantity.

Long vowels before a double consonant are generally shortened. The reason is given by Kacc. vii. 5, 13-14, where he says that a short vowel before a double consonant as a long vowel is called garu. This rule, however, is not always followed by the manuscripts, where we often find a long vowel before a double consonant, especially when the long vowel is the result of a contraction. Fausböll, in the preface to his edition of the Dhammapada, p. vii., was the first to call attention to this inconsistency of the manuscripts, and afterwards Senart, Kacc. pp. 4, 5, has discussed it at some length. The principles established by him have been followed on the whole by the recent editors of Palli texts, as far as the groups with assimilated consonants are concerned; and also Childers, in his Pâli Dictiōnary, has adopted them with a few exceptions, so he writes ăjjavam instead of âjavam, Kacc. $216=$ Skt. ârjava, dâbbî = Skt. dârvî, dâtta = dâtra, following Abhidhânappadîpikâ. Kuhn, in his Pâli Grammar, p. 18, condemns this way of writing, and allows the long vowel only in those instances in which a contraction has taken place, as in nâgghati $=$ na + agghati, piyâppiya $=$ piya + appiya. The Sinhalese editions generally follow the method of the manuscripts.

Before a nasal we generally find the law observed, as santa, danta, vanta = çânta, dânta, vânta, Kacc. 295, but the editors of the second part of the Mahâvamsa write lânganakicca, Mah. 39, 28. Before otber groups of consonants the editions are less consistent: we have ativâkya, Ab. 122, Db. 57 ; sakya, sakka, sakiya =çâkya, Mah. 9, 55, Abh. 5, 336; âkhyâta and akkhâta, Kacc. 5, 220; pahatvâna = pahâtrû, 'having left behind,' Dh. v. 243, 415 ; dussîlya, Dh. v. $162=$ dauḥçîlya, 'wickedness;' balya, 'childhood,' Dh. v. 63, but bâlya, Ab. 250, 1079 ; ñatvâ and bhitvâ, from jñâ and bhî, Kacc. 303, Dh. 85, 379 ; kamyatâ = kâmyatâ, 'desire;' bahya = bâhya, 'external.'

Another possibility of avoiding the contact of a long vowel with a double consonant is to put the single consonant of the group resulting by assimilation, as in ajava = ârjava, Kacc. 216, Ten Jât. 98 ; kâsu = karshû, 'hole,' $\hat{u} m i=$ ûrmi, 'wave,' Ab. 662; but ummi, Mil. 346; bhâṇaka = bhâṇḍaka, 'jar,' Suttavibh. 90, Ascoli Kritische Studien, p. 211; bhûja = bhûrja, 'the birch;' ahâsi = ahârshît;' 'he took.' 'The same process may take place after a short vowel, which then is lengthened, as in sâjîva for sajjîva $=$ sad + jîva, 'rule of conduct,' Pât. 5, 65, comp. Senart, Mahâvastu 481 ; vûpakâsati $=$ vyupakarsh, 'to make clear,' M. i. 25, 20, Pât. 109 ; svâtana = çvastana, 'belonging to to-morrow,' Dh. 231 ; vâka = valka, 'bark of a tree;' saikkápayati = sankappayati, 'to arrange,' M. iii. 1, 2 (there are, however, two various readings, sankkâyati, C. x. 18, and Anguttaranikâya, p. 117, and sankâmeti, Suttavibh. i. 50, which render the etymology doubtful). Several compounds with the preposition $u d$, as $\hat{u} h a d e t i=u d+\operatorname{had}$, 'to befoul with excrement;' uhata $=$ ud + hata, 'destroyed,' Dh. 375, Mahâvastu, 379, 566; ̂̂hasana, from ud + has, 'laughter,'

Mil. 127. Uhanati, M. i. 49, 4, Suttavibh. ii. 40, seems to be synonymous with uhadati, mentioned before; and I believe the translation given by Davids and Oldenberg, 'threw their bedding out,' not to be correct. 'The passive uhaññi is found M. i. 25, 15, the past participle uhata, C. viii. 10, 3; and another compound of the same root, ohaneti, occurs in the same signification, Cariy. ii. 5, 4, where it is in parallel to uccârapassâvam. katvâ, Jât. ii. 385.

The opposite way is to shorten the vowel before a double consonant, as in the instances given above, and this can also be done where a single consonant follows a long vowel. Frequent instances occur in the genitive plural of stems ending in $u$ or as $_{\text {; }}$ as bahunnam $=$ bahûnâm, Dhp. 81, pitunnam $=$ pitṛ̂̀ṇâm ; and of numerals, as tinnam, pañcannaṃ. But there are also a number of other words belonging to this category; as bhummi $=$ bhûmi, 'earth,' C. xii. 2, 5 ; mattisambhava $=$ mâtṛis ${ }^{\circ}$, Dh. v. 396 ; mâtumattika $=$ mâtṛimâtŗika, Suttavibl. i. 16; unhissa = ushṇîsha, 'diadem,' Bv. p. 68, note; vanibbaka= vanîpaka (which is found Cariy. i. 4, 5), 'beggar,' with change of $p$ to $b \dot{b}$; nidddha $=$ nîda, ' nest,' from ni + sad, (comp. Hem. i 106, Weber Indische Streifen i. 141, Ascoli 284); sutta $=$ syûta, 'sewn;' datṭha $=$ dâthá, 'jaw,' Mil. 150 ; abba$h a t i=\hat{a}+b r i h, ' t o ~ t a k e ~ d o w n, ' ~ a n d ~ i t s ~ c a u s a t i v e ~ a b b a ̂ h e t i, ~$ 'to pluck,' M. vi. 20, 2, C. vii. 4, 5; janṇu = jânu, 'knee,' Mabâparinibb. 69; avassayim for avâsayim (comm. vâsam kappesim.), 'I lived,' Jât. ii. 80. Syllables ending with $y$ are especially often treated in this way; as abhibhuyya $=$ abhibhûya, Dh. v. 328 ; bhiyyo $=$ bhîyo for bhûyas, mentioned above ; jiyyati = jîyati, 'to decay,' Dh. 179, and the suffix iyya $=$ îya.

The same transformations we have hitherto mentioned can
also take place in syllables which contain an $e$ or an $o$, with the only difference that these diphthongs always remain as they are ; they are considered long before a single consonant and short before a group, as stated by the grammarian Moggallâna (Alwis, Introduction, p. xvii. note, Catal. 41, 184). Generally, however, the syllable conforms to the condition, according with the etymology of a word. The following are exceptions, where the simple consonant stands for the double : veṭheti $=$ veshțayati, 'to surround ;' sekh $a=$ çaiksha, 'a disciple;' apekhâ and apekkhâ, 'desire,' = apekshâ, upekhâ and upekkhâ, 'equanimity;' vimokh $a=$ vimoksha, 'release.' $Y$ is always doubled after $e$, as in seyyo = çreyas, 'better;' maccudheyy $a$ mrityudheya, 'death:' the only exception is keyûra, 'bracelet,' Ab. 287, which generally becomes kâyûra (see above). $V$ after $o$ is only doubled in yobbana = yauvana, 'youth.' After the prefix o, contracted from ava, a double consonant formed by assimilation always remains, as in abbocchinna $=$ avyavacchinna, 'unbroken,' Mil. 72 ; okkhitta $=$ avakshipta, 'cast down,' Pât. 20, 21; and even a simple consonant is often doubled, as in ossajjati = avasrij, 'to give up ;' ossakkamâna = avasarpamâna, 'scattered,' Jât. i. 139; abbhokkirañ $=$ abhyavakiraṇa, 'covering,' and, with change of $o$ to $u$, abbhukkirati. Jât. ii. 311.

The cases of change of quantity are by no means yet exhausted by the rules and examples given above. We have numerous instances where the cbange is due entirely to the metre, and others again where no reason is visible. We will try in the sequel to keep separate as much as possible these two cases, and mention those instances which are supported by the Prâkrit dialects.

The roots terminating in $\hat{a}$, as $j \tilde{n} \hat{a}, d \hat{a}$, sth $\hat{a}$, almost regularly
shorten the vowel in composition, and in derived forms, as, e.g., paññavâ = prajñâvant, 'wise,' always written with $\breve{a}$ except in a passage of the Cûlakammavibhangasutta, quoted by Gogerly, Ev. 31. From sthâ we have patṭhăpeti, 'to bring forward.' The same occurs in samkhata = samkhyâta, Dh. . 70, where, however, it might also be shortened by a confusion with samkhata $=$ samskṛita. $\quad \vec{A}$ in the middle of a root is shortened in gahati and gaheti, ' to dive,' = gâh, and its compositions ogahi, Mah. 152 ; ogaha, Jât. iii. 289 ; vigayhati and vigahâpeti. Suffixes with long vowels are very often shortened, as, e.g., âgahita=âgrihîta, 'seized,' Dh. 107 ; appatita = apratîta, 'displeased,' Pât. 4, 5; sadevika = sadevîka, 'accompanied by his queen,' Mah. 205 ; vipaccanika $=$ vipratyanîka, 'hostile,' Grimblot 1 ; paccanika, Cariy. ii. 8,4 ; ahirika = ahrîka, 'shameless,' Dh. 44 ; sâlulca $=$ çâlûka, 'the root of the water-lily,' M. vi. 35, 6. Especially the suffix $\hat{\imath} y a$ is almost regularly shortened, as in pâniya = pânîya, 'water,' M. i. 26, 4; sakiya = svakîya, 'ownn;' upâdâniya = upâdânîya, 'sensual,' in a passage of the Samyuttaka Nikâya quoted by Oldenberg, Buddha 435 ; pâṭidesaniya = pratideçanîya, 'a class of priestly sins requiring confession,' constantly written so in the Pâtimokkha and Suttavibhanga; gariya $=$ garîyas, 'heavier,' Dh. 245 , \&c. Shortening by svarabhakti is very frequent in Pâli, as in bhariyâ = bhâryâ, 'wife;' âcariya = âcârya, 'teacher;' suriya $=$ sûrya, 'sun,' and numerous other examples.

Lengthening of vowels occurs principally, in prepositions, as in âbhidosika, 'stale,' from abhidosa, 'evening,' Suttavibb. i. 15 ; pâṭilhoga = pratibhoga, 'surety,' comp. Mabâvastu 582; pâvacana $=$ pravacana, 'the Holy Scriptures' (the same in the language of the northern Buddhists, Mahâvastu 566); pâkaṭa $=$ prakata, 'clear, evident;' pâheti, 'to seud' = prabi, from
the false analogy of the aorist pâhesi; pâyâti and pâyâto, from prayâ, 'to depart,' Jât. i. 146; Rhys Davids, Buddhist Suttas, p. 241, note. There are, however, some other instances of lengthened vowels besides: a privativum is lengthened in âyasakya, 'disgraceful,' from a + yaças, Jât. ii. 33, iii. 514, in paccâmitta $=$ pratyamitra, 'enemy.' Other vowels in âlinda $=$ alinda, 'terrace;' âjira = ajira, 'court,' Mah. 215 ; pâyâsa= pâyasa, 'rice porridge;' gâvuta $=$ gavyûti, 'a measure of length ;' ummâra $=$ udumbara, 'threshold ;' sabbâvâ $=$ sarvavat, 'entire;' kharápiṇda, 'lump of glass,' Dîp. 102. Lengthening is very frequent also when a word is repeated in composition; as phalâphala $=$ phala + phala, 'wild fruits, berries;' divâdivassa, 'at an unusual hour,' Ten Jât. 16, Ch. Addenda; khanḍâkhanḍạ., 'in pieces;' kiccâkiccâni, 'all sorts of duties.'

According to the law given by Kaccâyana, vii. 5, 13, that a short vowel before a double consonant is considered as a long one, we have to treat here also those cases where a single consonant after a short vowel is doubled, and a double one simplified, because the quantity of the syllable is changed by this process. In these cases it is sometimes very difficult to distinguish what is due to the metre, and what not. A clear instance of metrical change would be appabodhati, Dh. $\mathbf{\nabla} .143$, if Subhûti's opinion is right, that it stands for apabodhati; Weber, however, and Max Müller refer it to alpabodhati, 'parvi facere,' and Fausböll to a + prabodhati. Subhûti's view is supported by apparâjita = aparâjita, ' unconquered,' Cariy. i. 2, 2. Other instances are saparijjana, 'with his attendants,' Cariy. ii. 8, 2 ; kappilâyam, Cariy. ii. 9, 2; nikkhani for nikhani, 'he buried,' Cariy. iii. 14, 4 ; abhinivassatha,' he lived,' Cariy. i. 10,3 ; upavassatha, ib. i. 10,5 ; paddhâna, Bv. xvii. 16 ; uttassati $=$ uttrasatı, 'he trembles,' Cariy. iii. 13, 4 (participle
uttrassa, M. x. 2, 16) ; suppatha, Ab. 193 ; kummiga = kumriga, Mil. 346 ; paggharati, 'to ooze,' Dh. 81; abhisammayo, Bv. vi. 3 ; paribbasâna = parivasâna, 'abiding,' Fausböll, S. N. 152. The following are instances from prose texts where the doubling cannot be ascribed to metrical influence: patikkûla $=$ pratikûla, 'contrary ;' jâtassara $=$ jâtasara, 'a natural pond;' sakkâya=svakâya, 'individuality;' anuddayâ=anudayâ, 'compassion and anuddayatâ, Suttavibh. i. 247; vibbheda=vibheda, 'division,' Jât. i. 212 ; ummâ=umâ, ' flax,' Mil. 118 ; cheppâ= çepa, 'tail,' M. v. 9, 1; cikkhalla=cikhalya, ' mud,' M. vii. 1, 1 ; niggahîta $=$ nigribîta, 'restrained,' olckassa = avakrishya, 'having dragged away,' Mahâparinibb. 3; upakkilesa = upakleça, 'sin ;' upassaṭtha $=$ upasrishṭa, ' $\operatorname{pppressed,'~Jât.~i.~} 61$; vikkhâyitaka from vi + khâd, comp. Kern, Buddhism, 402; pâțiekka $=$ pratyeka, 'individual' (regular form pacceka); kallahâra = kahlâra, 'the white.water-lily;' mukkhara = mukhara, 'noisy,' Minayeff, Pât. 59 ; vissajjeti, from vi+srij, 'to give away,' and avissajjiya, avissajjika, C. vi. 15, 2, M. viii. 27, 5 (but visajja in a metrical passage Mahâparinibb. 17), and avissatṭhaka, Jât. i. 434.

Compared with these instances of doubling a consonant, the instances of the opposite process are but few, and they are nearly all to be ascribed to metrical influence. So we have dukha instead of dukkha=duhlkha, 'sorrow,' Dh. v. 83; putha instead of putṭha=pushṭa, 'fed,' Dh. v. 218; kaṇikâ=karṇikâ, 'an ear oruament,' Ab. 574. In prose texts I have only found kaṇikâra = karṇikâra, 'the tree Pterospernum acerifolium,' Jât. ii. 25 ; and bluadanta, also written bhaddanta = bhadrânta, ' a venerable man, a Buddhist priest.'

## § 6. Nasal Vowels.

The anusvâra or niggahîta can stand before every consonant, but before an explosive sound it may also migrate into the nasal of the corresponding class. So you may write kumkuma or kunikuma, samcarati or sañcarati, samdâsa or sanḍâsa, tamdita or tandita, kambala or kambala. In the first instance, however, before a guttural it is usual to transcribe the nasal by a simple $n$ withont any diacritical sign. Before $\hbar$ the anusvâra can be changed into the palatal or cerebral nasal, as pañha $=$ praçna, 'question,' but paṇhi = priȩni, 'variegated; ' in both instances the origin of the group is the same, viz., from $\varsigma n$, but the usage bas been fixed in different ways. From panha is derived apaṇaka for apanhaka, 'certain,' always spelt with the cerebral group. Paripaṇhati is spelt with the cerebral in 'Minayeff's Pâtimokkha, p. 17, 92; but in the corresponding passage of the Suttavibh. ii. 141, we have paripañhati, which I consider to be more correct. Prâk. paṇba, Hem. ii. 75. In the same way we have taṇhâ=trishṇâ, 'thirst,' saṇha=ęlakshṇa; but its derivative, spelt sañhita, Mah. 104. Osaṇhati, at C. v. 2,3 , is also spelt with the cerebral, and I believe this to be the correct spelling, as the $\underset{n}{n}$ is already found in Samskrit. I cannot account for the change of $\tilde{n}$ to $\boldsymbol{n}$ in apannattika=aprajñaptika, 'not existing,' in ânâ=âjñâ, 'order,' ânâpeti, âṇâpana, \&c.

Before a $y$ the anusvâra can remain, or the whole group can migrate into $\tilde{n} \tilde{n}$, as e.g. samyoga or saññoga. Before $r, s, v$ it is always retained. Before 7, the anusvâra is always assimilated, as in sallâpa = saṃlâpa, 'conversation.' Before a vowel it becomes $m$ in poetry when a short syllable is required, the nasal vowels being invariably cousidered as long.

The grammarian Vanaratana, according to Trenckner, Pali Misc. 80, remarks that $h$ may be joined to any une of the five nasals; for $h$ with the guttural nasal I can adduce no example, but for $h$ with the dental nasal we have cinha = cihna, ' mark,' pubbanha, Mil. 17; majjhanha = madhyâhna, 'midday,' Ab.767; sâyaṇha = sâyâhna, 'evening,' seems to be always spelt with the cerebral.

The nasal vowel is sometimes replaced by a long one, as in sihha $=$ siṃha, 'a lion;' vîsati $=$ vimsati, 'twenty ;' sandâasa $=$ saṃdaṃça, 'tongs;' dâth $h \hat{a}=$ daṃshṭrâ, ' jaw.' This happens often in the preposition sam when it is followed by $r$, as in sârâga= saṃrâga, ' passion;' sârambha $=$ samprambha, ' clamour ;' sârambĥ̂, 'clamorous,' Jât. iii. 259; sârânịiyo, Mabâparin. 2, is according to Senart's explanation, Mahâvastu, p. $599=$ saṃrañjñîya for saṃrañjauîya, and = sârâyanîya of the northern Buddbists, which etymology is confirmed by the passage of the Lalitavistara, p. 530, where we read sammodanîh saṃrañjanîh kathâh kṛitvâ, corresponding to the Pâli sammodanîyam kathan sârânîyaṃ vîtisâretvâ, comp. also Vinaya texts, ii. 364. Sârdham loses its anusvâra in the compound saddhivihârika, 'fellow priest,' and also in the simple word in a passage of Buddhaghosa quoted C. 318.

The opposite process is the development of an unorganic anusvâra out of an explosive consonant. This process has taken very large dimensions in the Sinhalese down from the 10th or 11th century (see my Contributions to Sinhalese Grammar, pp. 12, 13), but we find the beginning of it already in Pâli, and it is not merely the corrupt spelling of the Simhalese writers as Childers believed (see Childers, s. v. nagaram). Moreover, a form nangaram occurs in the Samskrit of the northern Buddhists, Mahâvastu pp. 83, 440, so that we have
no reason to doubt its correctness in Pâli. Nânga for nâga, 'snake,' Dh. 102, occurs again in the introduction to the Samanta pâsâdikâ, and seems to be also a correct form. Other instances are sanantana = sanâtana, 'perpetual,' which Childers explains as sanam + tana; piñja=piccha, 'wing,' (piccha occurs at M. v. 2, 3) ; mahin.sa $=$ mahisha, 'buffalo,' Cariy. ii. 5, 1, and mahimsakamandala, 'the Andhra country;' the insertion is especially frequent in syllables which originally contain an $r$; sammuñjanî=sammârjanî, 'a broom' (also written sammujjanî, Jât. i. 161) ; samvarî=çarvarì, ' the night ;' dandha=dṛị̣ha, 'slow' according to Trenckner, Pâli Misc. p. 65, and its derivatives dandhati, Jât. i. 345, Feer Etudes Bouddhiques 133, Cariy. viii. 13 (dantayi is a mistake); dandhâyanâ, Mil. 59, 105; dandhayitattam, Mil. 115 ; manikato= matkṛite, Mil. 384 ; mañkulâ=matkuṇa, 'bug,' Pât. 91, comp. Skt. mañkhuna ; añc= arc, 'to worship' according to Weber (we find, however, accayissaṃ, Dâṭh. v. 17, and accita, Ab. 750); another añc occurs, Jât. i. 417, to explain udañcanî; sanda=sâdra, 'thick, coarse;' singâla=çrigâla, 'jackal;' vitamsâ= vitastâ, Mil. 114; nantaka =naktaka or laktaka, 'dirty cloth,' Jât. iii. 22, which Trenckner, Pâli Misc. 81, believes to be borrowed from an aboriginal language: the regular form lattaka occurs Dhp. 190. Some participles must be mentioned here of verbs that have $n$ in the present, as randha $=$ raddha, from randheti, 'to destroy,' Mil. 107, Jât. 537 v. 108, 538 v. 85 ; bandha=baddha, 'bound,' Kacc. 130, M. viii. 12, 1, where Budethaghosa has baddham; pilandha = pinaddha, from pilandhati, 'to rear,' Mil. 337. The aorist agañchi, and the future gañchati or gañchitti, from gacchati, 'to go,' occur according to Trenckner, Pâli Misc. pp. 71-74, only in Sinhalese manuscripts, while the Burmese almost constantly write agacchi; besides, in the compound adhigacchati
the aorist does not take the nasal, and in the plural before -imsa, -ittha, -imha, the form gañchi is very rarely used. I believe these forms to have followed the false analogy of adanchi from daṃ̧, 'to bite,' Jât. 444 v .3 , and of âhañchi, M. i. 6, 8, hañchema, Jât. ii. 418, from han, 'to strike,' which both have the nasal in the root.

We often find a nasal added at the end of a word, as in sakkaccam = satkritya, 'respectfully;' kudâcanam = kudâ + caua, 'ever;' añ̄adatthum=anyad +astu, 'only, exclusively;' in a passage of the Samyuttaka Nikâya, quoted by Trenckner, P. M. 67, tatthañca=tatra ca, Mah. 5. In two instances we find $n$ instead of the anusvâra : cirann âyati, Kacc. 26, and satânan esa dhamma for satânam, Jayaddisa Jâtaka. Besides, at the end of the first part of compounds, not only in such cases where it is to be considered as an accusative, as in atalamphassa=atalasparęa, 'not touching the bottom;' sabbañjaha, 'leaving everything ;' such instances are viralañjana $=$ virala + jana, 'thinly peopled,' Att. 204; andhantama=andha + tamas, 'thick darkness;' attantapa, 'self-tormenting,' Childers s.v. puggala ; ganamgana, 'with many linings, M. v. 1, 30; rathandhuri $=$ ratha + dhur, 'the yoke of the carriage,' Saddhammopâyana v. 468 ; kabalim.kâra $=$ kabalı̂kâra (the writing of the Burmese MSS.) 'material food,' Gr. 43 ; jayampatî, ' husband and wife,' most probably standing for jâyâpati and also tudampati, would go back to the same form if Childers' etymology is right ; comp. Kuhn's Lit. Bl., no. 1, art. 2. The contracted form jampatî occurs Dâṭh. iv. 25.

## § 7. Vowels Added or Dropped.

A rowel in the middle of a word has been elided in agga for
agra $=$ agâra, 'house,' only used in compounds ; dhîtá=duhitâ, 'daughter;' jaggati for jâgarati, 'to watch;' and in the termination mhe for mahe, of the 1st person pl., âtmanepadam.

A vowel at the beginning is dropped in lañkâra=alañkâra, ' ornament, decoration,' Dîp, 47 ; numati= anumati, ' consent,' Dîp. 35 ; valañjeti=avalañjeti, 'to use, to spend' (the full form occurs Jât. i. 111, Suttavibh. ii. 266); pinâsa, 'catarrh' $=$ apinâsa, Skt. pînasa; pürajjhati for aparajjhati, from râdh, 'to be injured;' pavana=upavana, 'side of a mountain,' accordıng to Subhûti, Jât. i. 28, and perhaps vegha=avekshâ, 'care,' Mahâparin. 25, Rhys David's Buddhist Suttas p. 37.

About $p i$ for api, $t i$ for iti, $v a$ for iva and eva, we shall speak hereafter in the chapter on Sandhi.

The only instance of a vowel added in the beginning of a word is $i t t h \hat{\imath}=$ strî (istrî in the Gâthâs of the northern Buddhists), an evolution which bears the closest similarity to that in the Romance languages, as, e.g. ispirito=spiritus.

## §8. Consonants.

(1) Gutturals.-A Sanskrit guttural is represented by a palatal in cund $a=$ kunda, 'turner,' Mil. 331 ; $i \pi j$ and its compound sammi $\tilde{n} j$ were also believed to come under this rule by Fausböll, Dhp. 273, and Weber, Ind. Stud. iii. 147, Ind. Streifen i. 131, iii. 397, who identified it with Skt. ing; other etymologies of these difficult words have been suggested since, of which I will only mention two, that of Senart, Mahâvastu p. 418 , who believes samminj to stand for sampriñj, and that of Oldenberg, K. Z. xxv. 324, who derives it from añc. Against Senart there is only this to say, that the root vriñj occurs in
the form viñn, Suttavibh. ii. 264, in the form viñj, Suttavibh. i. 127 (comp. Trenckner, P. M. 59); and Oldenberg leaves the double $m$ entirely unexplained. The form samiñjayati occurs also in the Bribad Âraṇaka Upanishad, 6, 4, 23 ; and perhaps after all this may be the right etymology (Buehtlingk-Roth. s. v. sam +ing).
(2) Palata?s.-A Skt. palatal is represented by a guttural in bhisakka = bhishaj, 'physician' (but Satabhisaja = çatabhishaj, Ab. 60) ; milakkha = mleccha for milaska, K. Z. xxv. 327; pabhaniguna = prabhañjana, 'destruction.' Of much greater importance than this is the change of palatals to dentals, very frequent not only in Pâli but throughout the Indian vernaculars. Especially the Sinhalese, down from the 9 th century, is fond of this change, of which I have given numerous examples in my Contributions to Sinhalese Grammar, pp. 17, 18. An instance of this change in Skt. is samsridbhis, from saṃsrij, T.B. i. 8, 1, 1, Cat. B. v. 4, 5. 3. As in Sinhalese throughout, so we find in Pâli already a limited number of instances where $j$ passes into $d$, and $c$ to $s$, seldom into $t$ : digucchati and jigucchati=jugupsati, 'to despise ;' tudampatı̂ compared with jayampat̂̂ and jampatî, Dâṭh. iv. 25, see Childers s. v.; digacchá aud jüghacchâ=jighatsâ, 'hunger,' Pischel Beitr. iii. 249; pariccadi from pariccajati=parityaj, 'to forsake.' So $s$ for $c$ or ch in ussita = ucchrita, 'lofty,' Dîp. 19, Suttavibh. i. 79 (ucchita, Ab. 708), and its compound samussita in a passage of Papañca Sûdanî Alwis. Intr. 79 ; another samussita=samuccita, ' accumulated,' occurs at Dh. v. 147 ; ussaya, Suttavibh. ii. 224, must mean 'dispute, quarrel,' but I am not sure about its etymology ; ussati, various reading, Ang. i. 5, 5, is explained by Morris as being the present of ussita=ucchrita, but I doubt very much the correctness of this identification ; ussa=ucca,
'distinguished,' Fausböll, S. N. 164: $t$ for $c$ in tikicchâ $=$ cikitsâ, 'medicine ;' uttiṭtha for ucchitt!ha=ud+çishṭa, 'left over,' M. i. 24, 1, Mil. 213, 214, see also Vinaya texts i. 152; vitacchik $\hat{\imath}=$ vicarcikâ, 'scabies.' In upacikâ, 'white ant'= Skt. upadîkâ, the Pâli seems to have retained the original palatal, while the Skt. bas turned it into the dental: see Trenckner, P. M. 62. In kasina=kṛitsna, 'entire,' and dosina =jyautsna, 'clear, spotless,' I believe the $t$ to be dropped first, and then the consonants to have been separated by svarabhakti (see above, and Ascoli, Krit. Stud. 249).
(3) Cerebrals.-As in all Indian vernaculars cerebralization has been carried in Pâli much further than in Sanskrit, although not so far as in Sinhalese aud some other Prâkrits. The opposite process, viz. change of a Skt. cerebral to a dental in Pâli is very rare: cetaka=ceṭaka, 'servant,' Suttavibh. ii. 66, Cariy. ii. 4, 7; kotthuka = kroshṭâ, 'jackal,' Mil. 23, 118 (koṭṭhuka, Jât. ii. 108) ; dendima = diṇ̣̣ima, 'drum,' Jât.i. 3555; dindima, Dîp. 86, Bv. i. 32, may either be the same or=dundubhi, 'kettle-drum ;' dindibha = țțtibha, 'name of a bird,' Ab. 643; $k u b b a ̂ n a=k u r v a ̂ n ̣ a, ~ ' d o i n g . ' ~ I n ~ k h a ̂ n u=s t h a ̂ n ̣ u, ~ ' t h e ~ s t u m p ~ o f ~$ a tree,' I believe the spelling with the dental to be the correct one, as we have it Dh. 107, Mil. 34, and in khânuka, Jât. i. 483 ; as for khanati, which Trenckner, Pâli Misc. 58, 59, believes to have influenced $\hat{k} h \hat{a} n u$, it is also spelt with the dental in several instances, and where it is spelt with the cerebral this can be easily accounted for by assuming a confusion with the root, 'kshaṇ.' Ghâna=ghrâṇa, 'the nose,' is always spelt with the dental ; gona, 'bullock,' spelt gona, Jât. ii. 300, is derived from the root gur, 'to growl ;' gonaka most probably =gauṇika, 'a woollen coverlet,' Gr. 9, M. v. 10, 4 (comp. Pischel, Beitr. iii. 236). Besides, we have the dental instead of
the cerebral in the terminations of the aorist-ittho $=$ ishṭhâs, $-i t t h a=$ ishṭa.

The Pâli has one sound belonging to the cerebral class which does not exist in classical Samsskrit, but only in the dialect of the Vedas, viz. the cerebral l, distinguished from the dental by a dot under the line. It is very difficult to give exact rules for the use of this $l$ as the manuscripts are even less consistent in this respect than with regard to the dental and cerebral $n$. Generally speaking, $l$ or $!$ b between two vowels represents $d, d h$, but we find it used promiscuously also for the dentals. I have collected a number of instances from Pâli texts which will illustrate the use of these sounds: alulati Pât. xvi., but âluḷati Jât. i. 25, ii. 9, aloḷâpeti Alw. i. 103; bubbula = budbuda, 'a bubble,' Jât. i. 68, bubbulaka, Samanta Pâsâd. 336, but bubbuḷa, Mah. 175, 213, Att. 10, 190, bubbulaka, Dh. 31, 336 ; palâasa, 'leaf,' Dh. 42, but palâasa, 'pride,' Mil. 289 ; kabala, ' mouthful,' Pât. 22, Mah, 121, but kabala, Jât. i. 68, Mil. 180, kabalikâ, M. vi. 14, 5 ; kukkula, 'hot ashes,' Ab. 36, but kukkula, Jât. i. 73, 423 ; mâla, 'pavilion,' M. iii. 5, 9, but mâla, Gr. 2, Mil. 16, 47; cola, ' cloth,' Pât. 86, Mab. 219, colaka, C. ェ. 9, 4, but cola, Mil. 74, colaka, M. i. 25, 15, Mil. 53; celukkhepa, 'waving a cloth,' Mah. 99, 113, but celukkihepa, Samanta Pâsâd. 336; gâlha, 'deep,' Jât. ii. 75, but gâlha, Jât. i. 155, gâlhaka, Jât. i. 265 ; gâdha also is found in a later text, Saddhammopâyana, v. 394.
(4) Dentals.-The change of a dental to a cerebral is generally caused by a preceding $r$ in the original form of the word ; for instance, pajjunna = parjanya, Mah. 129 (pajjunna, Jât. i. 331), 'cloud,' katâkata =kritâkṛita, 'done and undone,' M. vi. 14, 7, but katâkata, Dh. v. 50 ; saklkata=samskrita, 'Samskrit,' in a passage of Buddhaghosa quoted C. 322 but
sakkata, Kacc. 10; pâsanda, 'heretical,' most probably $=$ pârshadya, Kern, Açoka, 58. In a great many instances, bowever, an $r$ has no effect on a following dental, as in muddikâ $=$ mridhvika, M. vi. 35,6 ; in attha $=$ artha, 'cause,' also spelt attha and atta; in the verb vattati, 'to begin,' = vartate (vattati means 'to be right,' see Childers, s. v.); pati and pati= prati (see Childers, s. v.) ; sithila, 'loose,' and sathila, 'crafty,' both from çrath (comp. Hem. i. 89), sâthalika, Ang. ii. 5, 3. The $n$ of the preposition $n i$ preceded by $p a=$ pra is always changed into $n$, as, e.g., panidahati $=$ pranidhâ; after pari it is generally changed, as in parinâyaka, Mil. 38, Jât. ii. 393 ; we find, however, also parinâyaka, Mab. 63, Mahâparin. 5, and parinaya= parị̣aya, ' marriage,' Ab. 318, parinibbâna, parinitṭhanti, S. P. '332. On the other hand we have also instances where the change of a dental into a cerebral is not due to a preceding $r$, as in $\sin n \hat{a}=$ =çûnâ, 'a slaughter-house,' also spelt sûnâ, M. vi. 10, 2, Suttavibh. i. 59; jaṇuu = jânu, 'kuee,' Mahâparin. 69, Ab. 742 ; sakuṇa=çakuna, ' a bird ;' sakkkunâti =çaknoti, 'to be able;' saṇim, sanikam=çanais, 'slowly' or 'quickly;' sobhana $=$ çobhana, 'resplendent;' dinna, past participle of dâ, 'to give,' in pariyâdiṇ̣a, Mil. 289 ; kavittha and kapittha, Jât. i. 237, =kapittha, 'the tree Feronia Elephantum ;' kapithana $=$ kapîtana, 'the tree Thespesia Populneoides,' Suttavibh. ii. 35; patisallâạa $=$ pratisamlayana, 'seclusion,' spelt with the dental, Dîp. 63, Jât. ii. 77 and Mil. 138, v. l.; patisallîna $=$ pratisaṇlîna, 'secluded,' spelt with the dental, M. ii. 1, 2 ; vipateti $=$ vipâteti, 'to crush,' C. v. 11,1 , if the reading introduced by Oldenberg is correct, but perhaps we ought to stick to vipphâdetvâ, given by the manuscripts, and derive this form from visphur with change of $r$ to $d$, as in some other instances given below, p. 33. Vibhîtaka $=$ vibhîtaka, 'beleric
myrobalan,' Ab. 567, Jât. ii. 161, spelt with the dental, M. vi. 6, Att. 213; vidaddhat $\hat{a}=$ vidagdhatâ, 'gallantry,' Att. 199; uṇata = unnata, 'high,' Ab. 289, unnametave, Fausb. S. N. xi., unnati, ib. 158; sanati=svan, 'to sound,' Mil. 414, but sanita, Ab. 747, sanantâ, Fausb. S. N. 131. In some cases the change of the dental to the cerebral is due to the influence of a sibilant, as in most derivatives of the root sthâ, 'to stand,' e.g., thâmo $=$ sthâman or sthâmas, 'strength,' Gr. 121, v. l., Kacc. 315, Sutta Nipâta, 34, ap. Senart, Mahâvastu, 628, spelt also thâmo several times(comp. Hem.iv. 267), thâna=sthâna, 'standing, thapeti, caus., \&c.; exceptions are indapatta=indraprastha, 'name of a town;' majjhatta=madhyastha, 'impartial,' where the aspiration is dropped besides, and santhâgâra $=$ samsthâ + agâra, 'a royal rest-house,' M. vi. 31, 1, Mabâparin. 60. In derivations of the root vas, 'to dwell,' we find the cerebral and the dental used promiscuously. The past part. is vuttha or uttha, Kacc. 291; in composition adhivattha, Jât. i. 99, adhivuttha, Mahâpar. 23, upavuttha, Cariy. ii. 3, 2, parivutttha, Pât. 6: for the absolutive parivatthabba in the same line we should adopt the reading given in the foot-note. The roots dah 'to burn,' and das 'to bite,' take the cerebral $d$ in those forms where there is no cerebral in the second syllable; there are; however, exceptions to this, as dayheyya, Mil. 84, Att. 192, 208, Dâṭh. iii. 10, upadaṃseti, Suttavibh. ii. 309; in some compositions of dah the $d$ is changed to $l$, as in vilayhase (v. l. vilayhase and vidayhase), Jât. ii. 220, âlâhana, 'a cemetery,' parilatha, 'fever, pain.'
$D$ is often changed to $l$, as in âlimpana, 'light'=âdîpana, Mil. 43; âlimpâpeti, 'to kindle,' Suttavibh. i. 85; dohala=dauhrida, 'the longıng of a pregnant woman,' and dohalinî, Jât. ii. 395, Kacc. 203, bila=viḍa, 'part, bit;' in bilasâ, Kacc. 91, bilaso,

Kh. 30, ulu=uḍlu, 'lunar mansion,' âvelâ = âpîḍa, Prâk. âmela, Hem. i. 105, 202, 234; koviḷ̣̂ra=kovidâra, 'Bauhịnia variegata;' $u l a ̂ a r a=u d a ̂ r a, ~ ' n o b l e: ' ~ D h ~ p a s s e s ~ i n t o ~ l i n ~ g h a r a g o l i k a ̂=~ g r i h a-~$ godhikâ, 'lizard.' $N$ is changed to $l$ in ela $=$ enas, 'fault,' nela, 'faultless,' from the same, not as Trenckner suggests, from nariya (Childers, add. s. v.): comp. anelaka, Senart, Mahâvastu 572, pilandhati $=$ pinah, 'to wear,' pilandhitvâ, Jât. i. 100.

Change of $d$ to $y$, forming an analogy to the ya-çruti of the Jainaprâkṛit, occurs in goyâna=godâna, in Aparagoyâna, 'name of one of the four Mahâdîpas, sâyati, 'to taste,' = svâdate, $k h a ̂ y i t a=k h a ̂ d i t a, ~ ' e a t e n, ' ~ a n d ~ k a ̂ y i t a b b a, ~ C . ~ v . ~ 34, ~ v i k k h a ̂ y i t a l i a, ~$ 'one of the Asubhakammaṭthânas,' Kern, Buddhism, 402. Avâhayi, Jât. ii. 354, must be derived from the root had, which we have in ohadâmase of the following verse.

I here add those cases where $t$ is changed to $l$ and $t$ to $r$ without being able to decide whether we have to adopt an intermediate form with $d, d$ or not: allaví=âtavi, 'name of a city in India;' âlavika=âțavika, 'dwelling in forests;' kakkhala =kakkhaṭa, 'hard, solid,' Prâk. kakkhaḍa, Pischel, Beitr. iir. 251 (kakkaṭa, Mah. 57); kheḷa=kheṭa, 'saliva,' in k'heḷapaka, G. vii. $3,1=k$ hetâtmaka according to Kern, Buddhism, 180; kulañka=kuṭanka, 'roof,' in kulanikapâdaka, C. vi. 3, 4 (v. l. kulunkap ${ }^{\circ}$ ); paḷaccara $=$ paṭaccara, ' old clothes.'
(5) Labials. $-P$ is changed to $m$ in sumanta $=$ supanta, 'sleeping,' Mil. 368; dhûmâyati = dhûpâyati, 'to fumigate,' Jât. i. 360, Samanta Pâsâd. 315, Dîp. 83. $B h$ is changed to $m$ in dindima=dundubhi, 'a drum;' $m$ is changed to $v$ in vîmams $=$ mîmâıns, Kacc. 243.
(6) Half-vowels :-
(a) $\boldsymbol{Y}$ is often changed to $v$, as in kîva=kiyant, 'how
much;' tivanigika=tryangika, 'having three angas,' Saddhammop. v. 65; tivañgula = tryangula, 'triangular,' Samanta Pâsâd. 336 ; kanḍuvati = kaṇ̣̂yyati, 'to scratch,' Suttavibh. i. 117 ; migava $=$ mrigayâ, 'hunting,' M. x. 2,15 ; navutta=nayuta, ' a large number,' Dh. 143 ; sampavainka $=$ samparyanka, 'friend,' Mahâparinibb. 6, Feer, Etudes Bouddh. 51, Weber, Indische Streifen, iii. 397; pativimsa or pativisa, M. vii. 11, 1, C. xii. 1, 1, Suttavibh. i. $60=$ pratyamẹa, 'portion,' with samprasâraṇa, vivina $=$ vijana, 'lonely,' Cariy. i. 1, 3 ; pavecchati, 'to give,' Jât. i. 28, Mil. 375, is identified with some hesitation to payacchati by Trenckner, Pâli Misc. 61. $\boldsymbol{Y}$ is changed to $b$ in $p u b b a=$ pûya, 'pus, matter ;' jalâbu = jarâyu, 'the womb;' nibbujjhati=niryudh, 'to struggle,' C. i. 13, 2, Suttavibh. i. 180, partic. nibbuddha, Gr. 9, Mil. 232 ; to $b h$ in sarabh $\hat{u}=$ sarayu, ' name of a river.'
$Y$ is changed to $r$ in kulira $=$ kuliya, ' mattress,' according to Buddhaghosa, Suttavibh. ii. 40, 357, Pât. 86, spelt kulîra, C. vi. 2,3 ; vedhavera $=$ vaidhaveya, ' the son of a widow ;' sâmanera=çrâmaṇeya, 'a novice,' Kacc. 188; bâhira=bâhya, ' external' (bâhiya, Jât. i. 422); antarârati=antarâyati, 'to run into danger.' It is changed to $l$ in latthi $=$ yashṭi, 'stick,' jotalati $=$ jyotayati, 'to lighten,' Kacc. 284 , upakkamâlati $=$ upakramâyati, 'to manœuvre,' ib. 235; to $h$ in nahuta=nayuta, 'a vast number,' ranañjaha=ranañjaya, 'victorious in the battle,' Mil. 21, Trenckner, Pâli Misc. 83, sahampati=svayampati, 'epithet of Brahmâ,' M. i. 5, 5, Vinaya Texts, i. 86, upatthâhaka $=$ upatthhâyaka, C. i. 18, 5. $\quad Y$ is changed to $j$ (as in Prâkrit, see E. M. Beiträge zur Gramm. d. Jainaprâk. p. 31) in jantâghara, jantaggha=yantragriha, ' bath-room,' Oldenberg K. Z. xxv. 325.
(b) $V$ is changed to $y$ in dâya=dâ 'a, 'forest ' dâyapâla, M.
x. 4, 2, comp. Senart, Mahâvastu, 633, lâyati, 'to reap,' Jât. i. 215 , and lâyeti, Suttavibh. i. $64=$ lâveti, châya $=$ câva, ' the young of an animal,' Ten Jât. iii. (generally châpa), caccara= catvara, ' a courtyard,' through an intermediate catyara. $V$ is changed to $b$ in paribbasâna, 'ab:ding,' from vas, Fausb. S. N. xii. 152 ; vârabâna $=$ vâravâṇa, 'a woman's jacket;' sibbana, 'sewing,' = sîvana, and sibbin̂̂, 'a needle,' M. viii. 1,18 , comp. Prâk. sivvinî, Pischel Beitr. iii. 260 (most probably from false analogy of sibbati=sîvyate, 'to sew'); subbaco=suvacas, 'compliant;' subbutth $=$ surrrishți, 'abundance of rain;' thabaka $=$ stavaka, 'a cluster of blossoms;' balibadda = balivarda, ' an ox;' sambâhati=saṃvâh, 'to shampoo,' Jât. i. 293, Suttavibh. i. 83; sâribâ=ęârivâ, 'name of a plant;' kabala=kavala, 'mouthful;' kabalikâ=kavalikâ, ' compress,' M. vi. 14, 5.
$V$ is hardened to $p$ in lâpa=lâva, 'quail,' Jât. ii. 59; pajâpat̂̂ $=$ prajâvatî, 'wife ;' pettâpiya $=$ pitrivya, 'cousin,' Trenckner, Pâli Misc.62; palâpa=palâva, ' chaff;' châpa=çâva, 'the young of an animal;' opilâpeti, 'to sink,' M. iv. 1,3 , vi. 26,6 , according to Trenckner, Pâli Misc. 63, from plu (Childers, add. derives it from pị̂); avâpurati, 'to open ' apâpunanti amatassa, dvâram, It. 84, v. 2, and pâpurati or pârupati, 'to dress,' from var; apadâna=avadâna, 'legend;' and also sapadânam, 'regularly,' (Treuckner, Mil. 428, derives it from sapadi + ayana, which I do not quite understand) $=$ sa + avadâna, according to Senart, Mahâvastu, 595; supâna = suvâna, 'dog,' Mil. 147; dhopana $=$ dhovana, 'cleaning,' Jât. ii. 117; sipâtikâ = çivâţikâ, M. vi. 7 . C. v. $11,2,27,3$ (in the two latter passages, however, it seems to have another meaning-Buddhaghosa explains it by kosaka, 'a sheath').
(7) Liquids:-

The change of $r$ to $l$ is frequent enough in Pâli, although not
quite so frequent as in some other Indian dialects, especially the Mâgadhî of the inscriptions. Instances are ludda=rudra, 'dreadful,' Trenckner, Pâli Misc. 59; lujjati=ruj, 'to break,' M. viii. 21, 1 (Dhm. vinâse), and its compound paiujjati, M. iii. 5, 9, Mabâparinibb. 40; paloka, 'the necessity of dissolution,' ib.; sajjulasa=sarjarasa, 'resin,' M. vi. 7; elâluka = ervâruka, ' cucumber,' Jât. i. 205, 312; elaṇda =eraṇda, 'Ricinus,' Assalâyanasutta 35 ; salala=sarala, 'a flower,' Jât. i. 13; puthuloma $=$ prithuroman, ' $a$ fish;' the preposition pari in palibodha, 'hindrance,' which, according to Childers, is the result of a confusion between parirodha and paribâdha; palibuddhati, 'to hinder,' paligha $=$ parigha, ' an iron beam ;' paligedha, a compound of gedha, 'greed,' Ang. ii. 4, 7 (it has nothing to do with the Sinhalese pali, 'reverend,' in the Tissamahârâma inscription); palipanna = paripanna, 'covered,' M. viii. 26, 1 ; paligunthita, 'entangled' (also spelt palikundhhita, Jât. ii. 92); pâligunṭhima, 'laced,' M. v. 2, 3; paliveṭheti = pariveshṭ, 'to wrap up,' phâlibhadda, Jât. ii. $163=$ pâribhadra, 'the coral tree,' Prâk. phâlihadda, Hem. i. 232, 254; sukhumâla = sukumâra, 'youthful,' by amalgation with sukhuma, Trenckner 66; agalu = aguru, 'Agallochum;' vâla=vâr, 'water;' kaṭula = kațura, ' buttermilk,' M. vi. 17, 1, Suttavibh. i. 66.
$R$ is changed to $d$ in purindada=purandara, 'a name of Iudra,' also written purinda, Cariy. i.9, 3, sârandada, 'name of a yakkha,' Mahâparin. 4; it is changed to $y$ in sâyanîya= sâraṇiya, according to Senart Mabâvastu 599 (see above, p. 21), mâtyâ, petyâ = mâtrâ, pitrâ, Jât. 527, v. 3, 5, 528, v. 26, Trenckner, Pâli Misc. 56.
$L$ is changed to $r$ in âkurati, from âkula, 'troubled ;' the Dhm. v. 94 has a verb kura saddâdanesu, which possibly may be identical with âkurati, although it is not known from any
other text; kira = kila, 'they say;' ârammana = âlambana, 'support,' arañjara=aliñjara, ' water-jar.'
$L$ is changed to $n$ in nalâṭa = lalâṭa, 'forehead;' nañgala $=$ lângala, 'plough ;' nañgula = lângula, 'tail ;' dehanî = dehalî, ' threshold;' $\operatorname{tintin} \hat{\imath}=$ tintilî, ' the tamarind tree,' comp. tintiṇanta, Jât. i. 243.
(8) Sibilants:-

As there is only one sibilant in Pâli, ç and sh are also represented by $s$. There are, however, a few exceptions to this rule : ç is represented by ch in chava $=$ çava, ' corpse,' M. iii. 12, 7, and as an adjective 'vile,' châpa and châya, 'the young of an animal,' chepp $\hat{a}=$ çepa, 'tail;' it is represented by $d \boldsymbol{d}$ in dâaka = çâka, 'pot-herb,' M. vi. 35, 6; 36, 8.
$H$ sometimes returns to its original medial aspirate, and this gives us Pâli forms which are older than the corresponding ones in Samskrit: the root nah in composition with api, ava, upa, vi, gives pilandhati, onandhati, upanandhati, vinandhati; these forms show us that the original form of the root was nadh and not nagh, as one would feel inclined to think from comparing the Latin necto, (see Whitney's Samskrrit Grammar, p. 76.) Similar forms are agghati, 'to cast,' compared with arahati, dubbhati, 'to cheat,' = druh, Jât. i. 267, iii. 13, 192, and the adjectıves belonging to the same root, dûbhin, Jât. ii. 386, dûbhaka, Jât. i. 363 ; adrûbhâya, 'truly, without falsehood,' M. x. 2, 17 ; ghammati=hammati, 'to go,' Naigh. 2, 14, Prâk. hammai, Hem. iv. 162, Hâla 694, ghañña, 'destruction,' from han ; the root har is found in its older form in samgharitabba v. 1. to samharitabba, M. i. 25, 10. Dh. 143.

A curious change of $h$ to $s$ occurs in senesika $=$ snaihika ' oily,' M. vi. 1, 4, and golisa=goliha, 'name of a plant.'

## § 9. General Remarks referring to Consonants of

## Different Classes.

(1) Aspiration is very frequent in Pâli with hard and soft consonants. Instances are : satthi=çakti, 'ability,' dhona= drona, 'a measure of capacity,' Dh. 43, Fausb. S. N. 58, 149 ; sukkumâla=sukumâra, 'youthful;' thambhakari=stambakari, 'rice ;' kiñciklk $a=k i n ̃ c i d+\mathrm{ka}$, 'some trifle;' khalopi=karoṭi, ' pot,' Mil. 107, according to Trenckner, Pâli Misc. 60 (also spelt Kalopi); Khandha=Skanda, 'the god Skanda,' through confusion with khandha, 'shoulder;' paccaggha = pratyagra, 'new ;' phâliphulla, 'in full blossom,' Jât. i. 52, Mahâparin. 53; phâlibhadda = pâribhadra, Jât. ii. 163; phâsu, 'agreeable,'= prâçu according to Trenckner, Pâli Misc. 81-I have derived it, following Paul Goldschmidt, from a hypothetical form smarçu (see my contrib. to Sinh. Gr. p. 13, note); phâsukâ=pârçukâ, 'a rib,' also written pâsukâ, C. x. 10, 1; phussa=pushya, 'name of a month,' and phussita=pushpita, 'blossoming ;' phârusaka=parûsaka, 'Grewia Asiatica,' M. vi. 35, 6; phalu $=$ paru, 'joint;' phallava = pallava, 'sprout,' Jât. iii. 40; sainkhalikâ = sañkalikâ, ' heap,' Jât. i. 433, Suttavibh. i. 105, Ang. p. 114, through confusion with sañkhalikâ, 'chain,' Senart, Mahâvastu 387 ; the reverse process is found in Prâk., where çrinkbala is changed to samkala, according to Hem. i. 189; valabhâmukha=vadaabâmukha, erâpatha= airâvata, 'king of the Nâgas, Jât. ii. $145=$ C. v. 6 , spelt erapatta Sadahammopâyana v. 349 , erakapatta, Dh. 344 ; âpâtha=âpâta, 'path,' Trenckner, Mil. 298, M. v. 1, 25, Samanta Pâs. 300 ; sunakha, 'dog', and lâmakha, 'vile,' Jât. ii. 430, are most probably older forms, as
we have the aspiration also in Prâk. suṇaho, Hem. i. 52, Pischel Beitr. vi. 92.
(2) The aspiration is dropped in $k h u d \hat{a}=k s h u d h \hat{a}$, ' $h u n g e r$;' khudita, 'hungry ;' upâdisesa $=$ upadhiçesha (and with change of the position of the component parts sesopâdi, Dâth. ii. 36), Oldenberg, Buddha, p. 437, ff.; matta=mrishṭa, 'polished;' abhivatta=abhivrishṭa, 'wet from rain,' Mil. 176; anovatta, Jât. i. 18; patanga = phaḍinga, 'flying insect;' paggava $=$ phalgava, from phalgu, 'herb,' Jât. ii. 105; anañgana, 'free from impurity,' compared with an̉has, 'sin,' Jainaprâk. aṇanhaya (E. M. Beitr. p. 33); rajovajalla and rajojalla, Ass. S. 13, Jât. i. 390, 'dust and dirt,' = rajas + jhalla, comp. Jainapr. jalla, E. M. Beitr. 34 ; âvajjeti=avadhyâ, 'to reflect,' Senart, Mahâvastu 377 ; a curious instance of dropped aspiration is $k \hat{a}$, Jât. ii. $258=$ khâ, 'spring,' Naigh., and perhaps we have to notice the same process in kakkâreti, 'to express disgust,' Jât. ii. 105, Five Jât. 29,=khât or khât +kâreti, which, however, might be also derived, with Childers, from kât $+k a ̂ r e t i$. As in Greek, two aspirations are not allowed in two syllables following each other, and when this happens the first is dropped, as, e.g., nikkaddhati $=$ nishkrish, ' to cast out.'
(3) There are also instances where the aspirate drops its first part and $h$ alone remains, as is done frequently in Sappskrit and later on in all the vernaculars. I believe, however, that a number of instances, especially those with $b h$, are only due to the bad writing of the Sinhalese, in whose alphabet $h$ and $b h$ are so easily confounded; M. i. 1, 3, four MSS. have the form have, but Buddhaghosa reads bhave, which shows us clearly the etymology of the word; the same process can be observed in the form hupeyya, M. i. 6, 9 (according to Trenckner, Pâli Misc. p. 62, a Burmese error for huveyya). Other instances
are momuhato from momugha, 'foolish,' Fausb. S. N. 161, ruhira = rudhira, 'blood,' Jât. i. 274, ii. 276, Cariy. i. 9, 13, C. vii. 3,9 ; at Bhikkhunîpâc. 60, Minayeff, p. 108, reads ruhita, the Suttavibh. ii. 316 rûhita with the v. l. rudhita, 'boil.' Suhita, Jât. xx. 1, 4, quoted by Minayeff, § 43, is = Skt. suhita and not sukhita.
(4) Softening of a hard consonant, that is to say, substitution of a sonant for a surd, is frequent enough in Pâli, as in pasada=prishata, 'the spotted antelope,' Cariy. iii. 13, 2 ; uda=uta, ' or ;' ruda=ruta, 'cry,', Jât. i. 207 (comp. ii. 388, where we have the readings rûda and rûta); kalandaka=kalantaka, 'squirrel ;'. patigacca = patikacca (v. l.) from patikaroti, 'to provide against future events,' M. i. 31, 1, Trenckner at Mil. 48, 421; vedhati=vyathayati, ' to tremble;' balasata $=$ parasvant, 'rhinoceros,' Trenckner, P. M. 59; suj $\hat{a}=$ sruc, ' a ladle ;' puñj for $p u n ̃ c h=$ proñch, 'to wipe,' Jât. i. 47, 318, 352. A certain instance of this change is in my opinion jhâyati= kshâ, 'to burn,' although Trenckner, P. M. 65, objects ; I have found several new forms of this verb and its causative jhâpeti or jhapeti, in addition to those given by Childers: jhatvâ, Jât. ii. 262 (Comm. kilametvâ); jhatta, Mah. 146, Dh. 325 ; nijjhatta, Mil. 209, and most probably also jâpeti, Mil. 171, which seems to be a misprint ; comp. nijhapeti, 'to injure,' in Açoka's pillar edict, no. iv. Cunningham, p. 112 ; Kern, Ind. Ant. v. 273 ; Prâk. jhïjai, Hem. ii. 3.

Instead of $p$ we generally find $v$ in this case, as in âvelâ= âpîda, 'garland;' theva=stepa, 'drop,' Pischel Beitr. iii. 239, vi. 102 (Hem. ii. 125 derives it from stoka); posâvana, 'supporting,' according to Childers = posâpana; vyâvata = vyâpṛita, covered,' Trenckner, P. M. 63, and veyyâvacca, veyyâvatika, 'service.'
(5) The reverse process, hardening of a soft consonant, or substitution of a surd for a sonant, occurs in pâyâka=prayâga, 'sacrifice,' Jât. 543 ; ajakara = ajagara, ' the boa constrictor.' Jât. iii. 484; kilâsu = glâsnu, 'lazy,' Suttavibh. i. 8 ; Katupika, 'going up to the waist,' Jât. 119, compared with katupaga, Suttavibh. ii. 340 ; dûrûpaka, Jât. ii. 167 ; kulupika, C. x. 13, 1 ; samsati fur sannsadi, loc. of samsad, 'congregation,' Jât. iii. 493,495 ; parisati and paricatim, loc. of parishad, Suttavibh. ii. 285; kusîta for kusîda, 'lazy,' already in the Maitrâyaụî Samhitâ ; pipa=piba, 'drink,' Jât. i. 459 ; pokkharasâtaka=pushakarasâdaka, 'name of a bird;' dhopana=dhovana, 'washing,' Jât. ii. 117 ; laketi = lageti, 'to stick ;' and lakanaka, 'anchor,' Mil. 377 ; thaketi=sthagayati, 'to cover,' sometimes spelt thakk'., Suttavibh. ii. 54; palikha = paligha, 'an iron beam,' Jât. 545 ; chakala = chagala, 'goat,' Suttavibh. i. 166 ; chakaṇa=chagaṇa, 'dung,' M. vi. 9 ; palikunṭita $=$ parigunṭhita, 'entangled,' Jât. ii. 92 ; pabbaja = balvaja, 'reed' (spelt babbaja, Suttavibh. i. 90); pappata = parvata, 'mountain,' I. O. C. 104; tippa for tiłba = tîvra, 'sharp,' Mil. 148; tuvamtuva, 'quarrel' = dvandva, through confusion with the pronoun tvam; pâceti $=$ pra +aj , 'to drive,' and pâcana, ' a goad,' Cariy. i. 1, 1 ; saterat $\hat{a}=$ çatahradâ, 'lightning ;' janṇъstaggha=jânudaghna, 'knee-deep,' Prâk. ${ }^{\text {thaggha, Pâiyal. 249; }}$ Yamataggi= Jamadagni, 'name of a rrishi;' vipâtikâ=vipâdikâ, 'abscess on the foot.' The root dhâ in some derivations substitutes th, as pithiyati, 'is covered ' $=$ apidhîyate (for which the Burmese write pidhîyati) ; upatheyya, 'cushion.' A similar process with regard to the root dhmí can be observed in santhamam=sandhaman, 'blowing,' Jât. i. 122.
(6) An interchange between the different classes of mutes is not infrequent in Pâli. Instances are kipillika $=$ pipilika, ' an ant', also written pipı̂lika, Saddhammopâjana, v. 23.
pipillika, Jât. i. 202 ; takkola = kakkola, 'Bdellium,' Jât. i. 291, also used as name of a country, Mil. 359, where it most probably corresponds to Skt. Karkota; jalûpikâ = jalûkikâ, 'a leech,' Mil. 407, originally jalauka, ' living in the water;' khajjopanaka = kbadyota, 'the fire-fly,' Dh. 338, Dâṭh. iii., 78; gaddûhana $=$ dadrûghna, 'a small measure of space or time,' Trenckner, P. M. 89 ; kalopi $=$ karoṭi (written khalopi, Mil. 107, Ab. 456), 'a pot;' âlupa = âluka, 'ebony,' Jât. 446, v. 1 ; chiggala $=$ chidra + la, 'hole,' Childers, s. v. tâla, Pakudha $=$ Kakudha, C. v. 8, 1. In most of these cases the reason of the change is dissimilation, as we find it also in phâsulikâ $=$ pârçukâ+ika, 'a rib,' M. i. 61, 1; sallalîkata = çalyakîkṛita, ' pierced,' Jât. i. 180. Other instances are not quite so easy to explain, such as rumbh for rudh in sannirumblutvâ, Jât. i. 62, 80, 163, ii. 6 (v. l. sannirujjhitvâ), comp. Fausböll, Ten Jât. 93, and sakle if this is really $=$ sarp, as Trenckner, P. M. 60, believes; perhaps we ought to derive it from cankram with a similar abbreviation of the reduplicated root, as in jaggati for jâgarati, but I give this merely as a hypothesis. The change of $c$ to $s$ would make no difficulty; the dissimilation adduced by Trenckner does not hold good for all instances, as in osatkati, ussakkati, nissalkati, visakkiya, Suttavibh. i. 74, we have no $p$ in the prepositions; comp. also Prâk. osakka, 'departed,' Pâiyal. 178. Khânu, 'the stump of a tree,' is rightly referred to Skt. sthâṇu by the Prâk, grammarians Vararuci and Hemacandra, and the same change of sth to kh is also adopted for the explanation of duhbkha = duḥstha by Jacobi K. Z. xxv. 438 ff., comp. Ascoli 236. Chambhati is derived from stambh, 'to tremble,' by Trenckner; Ascoli, p. 256, rejects this derivation, but does not suggest any other instead. From the Samskrit of the northern Buddhists we might compare icchattam $=$ itthattam ' existence,' Mahâvastu, 417.

## § 10. Consonants Added or Dropped.

A consonant is dropped in the beginning of a word in $\hat{u} k \hat{a}$ or ûka = yûka, 'louse,' Prâk. ûkâ, Pischel Beitr. iii. 241.

A consonant is added at the beginning of some verbal forms commencing with a $u$, which originates from Samprasâraṇa, as in vuccati $=$ ucyate, vutta $=$ upta, 'sown,' Mil. 375 ; vuttha and vusita from vasati, 'to dwell ;' vusímat, 'accomplished,' Fausböll, S. N. 208. This euphonic $v$ is not only used after vowels but also after anusvâra, and sometimes even at the beginning of a line, as in vutthahante, Mah. 30. Where the $u$ is long, we have to assume two prepositions, as in vipasamati $=$ vyupa $^{\circ}$, comp. Senart, Mahâvastu, p. 441, and the same where the $v$ is followed by $o$, as in vokkamati $=$ vyutkram ${ }^{\circ}$, Hem. i. 116; and Pischel's remarks, avossajimisu, Dâṭh. iii. 15.

In the middle of a word consonants are often elided through Samprasâraṇa. The syllable $y a$ is contracted to $i$ in mahâbodhingana $=$ mahâbodhyangana, 'the yard of the great Bo tree,' Mah. 176 ; pativimsa or pativisa, 'portion,' $=$ pratyaṃça; aticchatha, 'go further on,' from ati+acch; nibbijjhati $=$ nirvyadh, 'to pierce;' saccika = satyaka, 'true,' Mil. 226; pattiya $=$ pratyaya and pattiyâyati, 'to believe,' Jât. i. $426 \mathrm{v} . \mathrm{l}$. ; it is contracted to $e$ in vedhati= vyath, 'to tremble;' to $\hat{i}$ in vîtivatta $=$ vyativrritta, 'baving passed;' avîvadâta $=$ avyavadâta, 'confused,' Fausböll, S. N. 149; vîtihâra = vyatihâra, ' long step.'

The syllable $y \hat{a}$ is contracted to $\hat{\imath}$ in visîveti $=$ viçyâpayati, 'to warm oneself,' sometimes written visibbeti through confusion with visibbati, 'to unsew,' e. g., M. i. 20, 15 Pât. 15, Suttavibh. ii. 115 ; from the same root âsíyati =âç̧âyati, 'to
cool oneself,' Mil. 75 ; thîna $=$ styâna, 'idleness,' but $p a$ tthinna, 'stiff,' M. viii. 11, 2 ; to $i$ in anabhijjhita = anabhidhyâta, ' not coveted,' M. viii. 12, 2, where, however, the $y$ is also contained in the group $j j h$; to $e$ in jeyyo=jyâyas, ' better;' ajjheyyaka = âdhyâyaka, 'teacher,' Rasavâhinî 19.

The syllable $v a$ is contracted to $u$ in supina $=$ svapna, 'sleep;' turita = tvarita, 'hasty;' kuthita, 'cooked,' from kvath, Vinaya texts, ii. 57 ; it remains doubtful whether the root kuth, 'to be distressed,' Dhm. Mil. 250, Suttav. i. 108, is the same; Dh. 155 we have koddhetvâ, 'having cooked ;' to o in sobbhânu = svarbhânu, 'the ascending node;' sobbha $=$ çvabhra, 'hole,' and kussobbha, 'small water,' Fausböll, S. N. 131 ; to $\hat{u}$ in catûha = catu + ahan, 'four days,' M. i. 72, 2.

The syllable $v \hat{a}$ is contracted to $u$ in latukikâ from laṭâka, 'quail;' the syllable $v i$ in duratta $=$ dvirâtra, 'two nights.' Dohalin̂, which Kacc. 203 also considers as a compound of dvi, has nothing to do with this numeral.

Aya and ayi are contracted to $e$ in a great number of causative verbs and also in a few primitives, as apasseti = apâçrayati, ' to lean,' C. vi. 20, 2 ; neti = nayati, 'to lead;' apassena $=$ apâçrayana; ajjhena = adhyayana, 'reading,' Jât. iii. 114, Fausböll, S. N. 40 ; acceka = atyayika, 'accidental.' Aya and âya are contracted to $e$ in paleti = palâyati, 'to flee;' to $\hat{a}$ in Kâtiyânı̂ and Kaccân̂̂=Kâtyâyanî, Jât. iii. 427 ; Moggallâna= Maudgalyâyana, ekânika = ekâyanika, Mil. 402 ; upaṭthâka = upaṭthâyaka, 'servant,' also written upaṭthaka with ă, Bv. ii. 70 ; patisallậna = pratisaṃlayana, 'solitude ;' abbhâna $=$ abhyayana, 'rehabilitation;' upajjha $=$ upâdhyâya, 'preceptor;' abhiññ̂a = abhijñâya, 'having known;' patisañkhâ = pratisañkhyâya, 'baving reflected.'

The group ariya is first changed to ayira and then contracted
to era in âcera = âcârya, 'teacher,' Khuddasikkbâ ; or to îra, as in parihîrati=paribaryati ; asa ${ }^{m} h \hat{\imath} r a=$ asambarya, ' unconquerable,' Dîp. 31.

Iya is contracted to $i$ in kittaka=kiyattaka, from kiyant, 'how much;' to $e$ in etta, ettaka=iyatta, from iyant, Mabâvastu, p. 384 ; in Prâk. we have kettia and ettia, Hem. ii. 157, Goldschmidt, Prâkritica, p. 23. Trenckner takes etta to be abridged from ettaka, Pâli Misc. 65, note 23.

Ava is contracted to o very often in compounds formed with the preposition ava, as onîta = avanîta, 'cleansed,' in the phrase onîtapattapâṇi, frequent in the Vinaya, see Vinaya Texts i. 83 ; ojahati=avahâ, 'to forsake,' aorist passive ohiyi, Dh. 158 , ohiyyaka, 'left behind,' Suttavibh. i. 208; odahati = avadhâ, 'to deposit;' vossagga=vjavasarga, Lotus, 312, and avossajjimsu, Dâṭh. iii. 15 ; ogadha= avagâdha, 'belonging to ;' ora $=$ avara and avâra, 'lower' and 'hither;' opatta = avapattra, ' without leaves,' Jât. iii. 496 ; uddosita = udavasita, 'stable,' M. iii. 5, 9, C. x. 24, Suttavibh. i. 200, Ab. 213. Other instances are pahonaka $=$ prabhavanaka, 'sufficient,' and pâhuna $=$ prabbavana, Mah. $205 ;$ poṇa $=$ pravaṇa, 'sloping;' opeti $=$ âvapati, ' to put,' Trenckner, Pâli Misc. 78; osâpeti causative of âviç, 'to sling', Jât. i. 25. In anavaya = anavayava, 'perfectly versed in,' Mil. 10, and appatissa=appatissava, Jât. i. 217, the last syllable is dropped because the word was too long.

Instead of $o$ we also find $u$ in the same or similar cases, as uhadati=avahad, 'to befoul with excrement' (see above, p. 15); uj̋hâyati = avadhyâ, 'to be annoyed;' uññ̂a = avajñâ, 'contempt,' and un̈ñâtabba, Feer. Et. Bouddh. 128 ; âhuneyya = âhavanîya, Mahâparin. 20 comp. the commentary to Aug. ii. 4, 4 .

The group apa can undergo the same changes as ava, and it
is sometimes difficult to find out which preposition we must assume as the corresponding Samskrit word : ovaraka=apavaraka, 'store-room,' Jât. i. 391; oggata = apagata in oggate suriye, ' after sunset,' Suttavibh. ii. 268, ottappa = apatrâpya, 'fear of sinning,' Senart, Mahâvastu 463.

Other contractions have taken place in ok $a=$ udaka, 'water;' Kuçinârâ = Kuçinagara; koṭthaka = koyashțika, 'paddy bird,' Five Jât. 36 ; jantaggha = yantragriba, 'bath-room,' Suttavibh. i. 55 ; paccûsamaya = paccîsasamaya, 'morning ;' changula $=$ shaḍangula, 'six inches,' Mah. 211; pavissâmi for pavisissâmi, Jât. ii. 68; sosârita $=$ su + osârita ; dosârita $=$ durosârita, 'duly and unduly restored,' M. ix. 4, 11; vivicchâ = vicikicchâ, 'doubt;' dûpadhârita $=$ durupadh ${ }^{\circ}$, Suttavibh. ii. 275, the opposite to sîpadhârita, 'well kept in mind,' M. v. 13, 9.

Metathesis is very frequent in Sinhalese, see my Contrib. to Sinh. Grammar, p. 14; in Pâli we have only a few instances, as upâhanâ =upânah, 'shoe;' pârupana for pâvaraṇa or pârurana, Suttavibh. i. 180, 'upper robe,' see Pischel, Beitr. iii. 247; kasaṭa=sakaṭa, ‘insipid,' Mil. 119, Dh. 275, Jât. ii. 97, Ang. ii. 5,5 ; cilimikâ, C. vi. 2, 6 and cimilikâ, Suttavibh. ii. 40, most probably go back to a form cilamîlikâ or ciliminikâ, 'an ornament,' Vyut. 208, comp. Vinaya texts ii. 153.

## § 11. Changes of Consonants at the End of a Word.

According to the rule given above, p. 23, we only find vowels or nasals at the end of a Pâli word. Every nasal is changed into anusrâra and a preceding long vowel shortened in consequence. Very often the anusvâra is dropped altogether especially in verse when a short syllable is required by the
metre, as etam, buddhâna sâsanam = etad buddhânâm çâsanam, 'this is the command of the Buddhas,' Dh. v. 183. Other cases will be treated of in the chapter on Sandhi.

Before a word beginning with a consonant the anusvâra can be changed into the nasal of the corresponding class, as in hirin tarantam, Jât. iii. 196. Before a word beginning with a vowel the anusvâra may be changed into $m$, as in caram atandito for caran=carant, Dh. v. 305.

The termination as generally becomes o whatever the consonant beginning the next word may be, as in the nom. sing. of $a$-stems almost regularly. There are a few exceptions to this rule which are considered as Mâgadbisms by most grammarians. A passage of this kind occurs in the Sâmaññaphalasutta Gr. p. 121, n'atthi attakâre n'atthi parakâre n'atthi purisakâre, 'there is no action on our part, there is no action on the part of others, there is no human action.' Another Mâgadhizing passage from Majjhima Nikâya is quoted by Trenckner, Pâli Misc. p. 75: ânañjâdhimuttassr purisapuggalassa ye lokâmisasaññojane se vante, where we find the $e$ used for a neuter noun. I feel sure that a more careful study of Pâli literature will furnish us a great many more passages of this kind. They all agree in this point, that the nom. in $e$ is only formed of stems in $a$ and never of any consonantal stems, the same rule which holds good for the Jainaprâkrit, see E. M. Beitr. zur Gram. d. Jainapr. p. 38. About the origin of this $e$ several opinions have been advanced, but I will not discuss them here, as the subject belongs more especially to Prâkṛit grammar. The vocatives bhante and bhikchave are taken over directly from the Mâgadhî.

Besides these nominatives in $e$ we have several adverbs terminating in as, which change the as to $e$, as suve =çvah, 'tomorrow ;' tadahe=tadahas, 'on that day,' which also occurs in
the form tadahu; atippage (and atippago) = atiprâgah, Senart, Mabâvastu 418, most probably also tâvade, yâvade, which, however, are explained by Childers as abridged forms of tâvadeva, yấvadeva.

The $s$ is dropped and the $a$ alone remains in okamokata for okamokatas, 'from the water,' Dh. v. 34 ; távatimsa $=$ trayastrimẹa, 'thirty-three;' and with lengthening of the a, rajâpatha $=$ rajaḥpatha, 'dust-hole ;' jarâmaraṇa $=$ jaras + maraṇa, 'decay and death.'

The syllable as is changed to $u$ through an intermediate $o$ in tadahu, mithu= mithas, 'mutually;' mithubheda, M. vi. 28, 8; sajju=sadyas, 'instantly'

Other consonants at the end of a word are simply dropped, and the remaining vowel generally is not changed. There are, however, some cases where it is lengthened, shortened, or a nasal is added :-
(1) It is lengthened in $d h \hat{\imath}=$ dhik, 'fie ;' $b r a h \hat{a}=$ bribat, ' mighty;' parisâ=parishad, 'assembly.'
(2) It is shortened, as in kayira for kayirâ = kuryât, Das., Jât. 28 ; assa=syât, \&c.
(3) A nasal is added, as in the verbal terminations $u m=u s$, eyyum = eyyus, isum=ishus, sanam=sanat, 'always;' saniṃ= çanais, 'slowly or 'quickly,' Mah. 156; visum = vishvak, 'separately;' khattum = kritvas, a form which occurs also in the Samskrit of the northern Buddhists, see Senart, Mahâvastu 541; manam = manâk, 'nearly,' Jât. i. 149, M. ii. 12, 1, the same form in Prâk. Hem. ii. 169 ; tiriyam=tiryak, 'across.'

## § 12. Compound Consonants.

Compound consonants are generally assimilated, as in all Prâkrit dialects. Sometimes the assimilation is avoided by inserting a vowel, as we have seen above, p. 12. In the beginning of a word, instead of a double surd or sonant resulting from assimilation, a single surd or sonant is written, and instead of a surd or sonant aspirate only the aspirate.

The assimilation is generally progressive, so that the first consonant is assimilated to the second, especially so with explosives.

Kt becomes $t t$ in mutta=mukta, 'released' (but kk in patimukka, 'fixed '); satti=çakti, 'power' (also written satthi); sattu $=$ çaktu, 'barley' (also written satthu at Pât. 89) ; sippi 'pearl oyster,' which Trenckner, Pâli Misc. 60, identifies with cukti, I believe to be borrowed from some vernacular language.
$K t h$ becomes $t$ th, as satthi=çakthi, 'thigh.'
$G d h$ becomes $d d h$, as in $d u d d h a=$ dugdha, 'milk.'
$G+b h=b b h: ~ p a b b h a ̂ r a=$ prâgbhâra, 'a cave.'
$p+g=g g$ : khagga=khadga, 'a sword.'
$T+k=k k: ~ u k k a ̂ r a=u t k a ̂ r a, ~ ' d u n g . '$
$T+p=p p:$ uppatati $=$ utpat, ' to jump.'
$D+g=g g$ : puggala=pudgala, 'individual.'
$D+g h=g g h: u g g h a r a t i=u d+g h r i$, 'to ooze.'
$D+b=b b: b u b b u l a=$ budbuda, ' $a$ bubble.'
$D+b h=b b h: u b b h i j j a t i=u d+b h i d$, ' to burst ;' ubbhitoda'ia =udbhritodaka, Gr. 140.
$P+t=t t$ : vutta $=$ upta, 'shaven.'
$B+j=j j$ : paṭikujjeti=prati + kubj, 'to cover,' Jât. i. 50, 69, Mahâparin. 56, Mahâvastu 377.
$B+d=d d: ~ s a d d a=c ̧ a b d a, ~ ' a ~ s o u n d . ' ~$
$B+d h=d d h: \quad$ ladd $h a=$ labdha, 'taken.'
When an explosive meets a following nasal the assimilation is generally retrogressive, or is avoided by the insertion of a vowel. There are, however, some instances also of progressive assimilation :-
$K+n$ becomes $k k$ in sakkoti or sakkunâti (where the double $k$ can only be explained by false analogy) = çaknoti, 'to be able;' kukkus $a=$ kiknasa, 'grain,' C. x. 27, 4.
$K+m=m m$ : rummavatî = rukmavatî, 'name of a verse,' Vuttod. ap. Fryer, Pâli Studies, p. 8.
$G+n=g g$ in aggi or aggini=agni, 'fire,' Kacc. 54, Jât. iii. 320 ; gini, S. N. 3.
$G h+n=g g h:$ viggha $=$ vighna, 'obstacle.'
$J+n=\tilde{n} \tilde{n}: a \tilde{n} \tilde{n} \hat{a}=$ âjñâ, 'order.' $\quad$ In oñâta and avañâta $=$ avajâta, 'low born,' Pât. 83, and kolañna=kulaja, 'high born,' Mil. 256, the roots $j a n$ and $j \vec{n} \hat{a}$ are confounded.]
$D+m$ : kudumala $=$ kuḍmala, 'a bud.'
$T+n$ : sapattî = sapatnî, 'hostile,' but gahapatânî = gribapatnî, 'house-wife,' ratana $=$ ratna, 'jewel.'
$T+m$ : attâ and âtumâ=âtmâ, 'self;' tumo=tmanâ, Oldenberg K. Z. xxv. 319.
$T h+n=t t h:$ abhimatthati=abhimathnâti, 'to grind.'
$D+m$ : chadd $a=$ chadman, ' roof;' paduma=padma, 'lotus ;' dammi $=$ dadmi, ' I give.'
$D h+n$ : bunda=budhna, 'the root of a tree.'
$D h+m:$ idhuma $=$ idhma, 'fire-wood ;' venudhama $=$ veṇudhma, ' a flute-player;' and from the same root uddhumáyati= uddhmâ, 'to be blown up.'
$P+n$ : pappoti and pâpunâti= prâpnoti, 'to obtain;' supina and soppa $=$ svapna, 'sleep.'
$P+m: ~ p a ̂ p i m a ̂=p a ̂ p m a n, ~ ' s i n f u l . ' ~$
Groups containing a riasal and following explosive generally remain unchanged; the following are exceptions:-

Nc becomes $\tilde{n} \tilde{n}$ in pañ$\tilde{n} a ̂ s a=$ pañcâçat, 'fifty;' $n n$ in paṇṇuvîsam $=$ pañcavị̧̣̣ati, ''twenty-five,' Jât. iii. $138 ; n n$ in pannarasa, 'fifteen,' pannarasi, 'the day of the full or new moon,' comp. Sinh. panas, Prâk. paṇavaṇṇâ, Pischel, Beitr. iii. 245.

Nj becomes $\tilde{n} \tilde{n}$ in viñ̃̃itva and viñ̃âpetoâ from vriñj, Suttavibh. ii. 264, but âviñji, Suttavibh. i. 127, âviñjanâ, ib. 121,


Nd becomes $n n$ in punnarika = puṇdarîka, 'lotus,' in a passage of the Ang. quoted by Oldenberg, Buddha 424 ; simplified in bhânaka= bhâṇdaka, 'a jar; dd in deddubha=duṇdubha, 'a kind of lizard.'

Mb becomes $m m$ in ammâ = ambâ, 'mother ;' ârammana $=$ âlambana, 'support.'

When two nasals meet progressive assimilation takes place, as in ummagga = unmârga, 'an underground watercourse,' ninna $=$ nimna, 'deep.'

Groups containing $y$ generally assimilate the same to the other element. If, however, the first element is a dental the whole group passes into the palatal class. In many cases the assimilation is avoided by the insertion of an $i$ or the group remains unchanged.
(1) Gutturals: ussukka = autsukya, 'zeal ;' sokhiya $=$ saukhya, 'happiness;' âkhyâta=âkhyâta, 'announced ;' yogga = yogya, ' proper.'
(2) Palatals: vuccati $=$ ucyate, pass. of vac; joti $=$ jyotis, 'light;' jiyâ and $j y \hat{a}=$ jyâ, 'the bow-string ;' and adejjha $=$ adhijya, Jât. iii. 274.
(3) Cerebrals: kudda = kudya, 'a wall;' addhya, add $d h a=$ âḍhya, 'rich ;' puñ̃̃̃a=puṇya, 'good.'
(4) Dentals: âhacca = âhritya for âhârya, 'having told;' uhacca=avahadya, 'having befouled;' ekacca=ekatya, 'a certain,' according to Senart, Mahâvastu 388, comp. ekacciya, M. viii. 14, 2 (Childers and Trenckner, Pâli Misc. 56 derive it from ekatara) ; âvajjati=avadhyâ, 'to consider ;' añ̃̃a=anya, ' other;' cicca = cintya for cintayitvâ. The assimilation does not take place in cetya, cetiya $=$ caitya, 'a relic-shrine ;' vyattaya $=$ vyatyaya, ' opposition;' pataggi $=$ pratyagni, 'fire in return;' pâtanikî = pratyankin, 'a sedan chair,' M. viii. 10, 3 ; pâtekka from pratyeka, 'singly' (the regular form pacceka occurs frequently) ; pasîdiya $=$ prasîdya, 'believing,' Mah. 5 ; in compositions with $u d$ we obtain the group $y y$, as uyyoga $=$ udyoga, 'departure.'
(5) Labials: tappati=tapyate, pass. of tap ; labbhati=labhyate, pass. of labh; lepya $=$ lepya, ' plastering.'
(6) After $r$ we generally find epenthesis, as in âcariya $=$ âcârya, 'teacher;' suriya $=$ sûrya, 'sun ;' and sometimes the position of the sounds is inverted so that we have the group yir instead of the group riy, as in ayira = ârya, Jât. ii. 349; bhayirâ = bhâryâ, 'wife ;' kayirâ=kuryât optative, and kayirati $=$ kriyate, passive of kar. Besides, we have cases of retrogressive and progressive assimilation ; when retrogressive assimilation takes place we get the group $y y$ and sometines a single $y$, when progressive assimilation, we obtain a single $r$, as this consonant cannot be doubled, with a long vowel before it. Instances are: ayya $=$ ârya, ' noble ;' jiyyati, jîyati, and jîrati $=$ jar, ' to grow old ;' seyyasi= çîryasi, from çar, 'to decay,' Jât. i. 174 ; Dh. 147 ; paripûrati = paripûryate, 'to be filled.' The group $r y$ is changed to $l l$ in vipallâsa=viparyâsa, 'change,'

Suttavibh. i. 7: pallanka = paryanka, 'couch ;' pallattha $=$ paryasta, ' posture,' Jât. i. 163.
$L+y$ is either preserved or assimilated : kalyâna and kallâna =kalyâna, 'fortunate,'
$V+y$ is often written $b y$ in the beginning of a word where it represents the preposition $v i$; this is the spelling of the Burmese MSS. while the Sinhalese write vy; in a few instances I have found it in the middle of a word, viz. korabya=kauravya, Jât. ii. 371 ; upasambyâna = upasamvyâna, ' the outer garment,' Ab. 292. We also find examples of assimilation in the beginning, as vavatthâpeti $=$ vyavasthâpayati, ' to settle ;' váyamati $=$ vyâyam, 'to struggle;'vodaka = vyudaka, 'without water;' vossajjati=vyavasrij, 'to relinquish.' In the middle of a word vy remains as in pathavyâ, Dh. 32, or is divided by $i$, as in puthuviyâ, Mah. 19, puthuviyam, Att. 8 ; it may however also be assimilated to $b b$, as in abbocchinna $=$ avyavachinna, 'unbroken,' Mil. 72 ; abbohârika=avyavabârika, Suttavibh. i. 91 ; $b h a ̂ t u b b a=$ bhrâtrivya, 'cousin,' Bâlâvatâra, p. 36 ; abhabba= abhavya, ' unable;' sibbati $=$ sivyati, 'to sew ;' pasibbaka, 'a bag,' from the same root. The $y$ is altogether dropped in gâvuta = gavyûti, 'a measure of length.' The forms in tayya= tavya; given by the Grammarians as ñâtayya $=$ jũâtarya, pattayy $a=$ prâptavya, $I$ believe do not belong to the living language. After a sibilant we have progressive assimilation; the only exception is álasya or âlasiya=âlasya, 'sloth,' Dh .49.

In the group hy the position of the elements is reversed; so that it becomes $y h$, as mayham $=$ mahyam; exceptions are bâhya, 'external' (also bâhira with change of $y$ to $r$ ) and etihya =aitihya, 'oral tradition,' Ascoli 244. Assimilation takes place in leyya $=$ lehya, 'to be licked;' epenthesis in hiyyo or hivo $=$ hyas, ' yesterday.' For $y h$ in vuyhati=uhyate we also
find $l h:$ vulhati (Ascoli 244 derives this from the part. vûlha, I doubt whether the form is correct).
$R$ before an explosive is always assimilated, and if the explosive is a dental the group may become cerebral ; in a few instances also the influence of the $r$ is shown by aspiration.
(1) Gutturals: sakkharâ = çarkarâ, 'sugar,' spelt sakkarâ, Jât. i. 238; vagga=varga, ' class ;' dîgha=dîrgha, 'long,' with compensation ; kakkasa=karkaça, 'rough.'
(2) Palatals : acci $=$ arci, ' flame,' spelt acchi in a passage of Samyuttaka Nikâya quoted by Oldenberg, Buddha 434 ; mucchati $=$ mûrchati, 'to faint;' sajja = sarja, 'the sal tree.'
(3) Cerebrals: kanna=karna, 'the ear:' kannakita =karnakrita, Suttavibh. ii. 282.
(4) Dentals: pârivatṭaka $=$ parivartaka, ' $a$ robe lent to a priest and returned by him after a period,' 'Pât. 8. 13. 78, but pârivattaka Suttavibh. ii. 59 ; âvatṭa=âvarta, ' whirlpool,' Mah., 213 , but âvatta, Jât. i. 70 ; vatṭaka=vartaka, ' $q$ uail ;' vattati $=$ vartati, 'to be right,' but avattati and nibbattati; attha $=$ artha, 'reason,' but attla, 'lawsuit;' kevatta=kaivarta, 'fisher.' also spelt kerattha in Wastergaard's Catalogue 21a; chaddsti $=$ chard, 'to throw away,' also spelt chadḍh, Jât. i. 277 ; parimaddati = parimard, 'to excel,' also spelt parimaddh, Jât. ì. 145 ; addita = ardita, 'afllicted,' Mab. 3, but addita, Bv. ii. 129 ; dadḍhi=_darụ̀bj a, 'sloth,' Trenckner, Pâli Misc. 65. A curious metathesis takes place in gadrabha $=$ gardabha, ' $a$ donkey,' but in gaddabhand $a=$ gardabhânḍa, 'the tree Thespesia populneoides,' the assimilation is regular.
(5) Labials: kappûra = karpûra, 'camphor;' abbuda $=$ arbuda, 'a high number;' gabbha = garbha, 'womb;' kamma = karma, 'action.' The group $r v$ becomes $b b$, as in pabbaha $=$
parvata (spelt pappata sometimes in Burmese MSS.); cappeti =carv, 'to chew,' C. 317.
(6) Sibilants: assimilation in dassana $=$ darçana, 'sight;' epenthesis in arisa $=$ arças, 'hemorrhoids;' ârissa $=$ ârsha, 'rishiship,' Kacc. 216. The group rsh is turned into $h$ in kahâpana = karsbâpaṇa, kâhiti = kârshyati. From harsh we have a present hamsati, 'to rejoice,' Suttavibh. i. 8, Kacc. 390.
(7) Before $h$ we always have epenthesis, as in arahati $=$ arhati, barihisa $=$ barhis, 'sacrificial grass.'
$R$ following an explosive is also generally assimilated, but here we find several instances where it is retained or a vowel is inserted:-
(1) Gutturals: vakka=vakra, 'crooked;' khidḍâ (and killầ) =krị̣̂â, 'play ;' khuṃseti $=$ kruç, 'to curse,' comp. Pischel, Beitr. iii. 253; vagga = vyagra, 'irregular,' Oldenberg K Z. xxv. 324 ; paccaggha=pratyagra, 'new;' with epenthesis kiriyâ =kriyâ, 'deed ;' kurûra $=$ krûra, 'cruel.'
(2) Palatals : vajira=vajra, 'thunder-bolt.'
(3) Dentals: sattu = çatru, ' enemy,' spelt satthu, Dîp. 21 ; sâvitthî $=$ sâvitrî, M. vi. 35, 8, spelt sâvittû, Fausb. S. N. 75 ; tattha, yattha, kattha = tatra, yatra, kutra, ' there,' 'where,' parattha=paratra, 'elsewhere;' sotthiya $=$ çrotriya, 'a brahmir;' sabbathattâ = sarvatratvât, 'in every way,' according to Web-r, Indische Streifen iii. 397; haliddi $=$ haridrî, 'turnferic myrobolan,' Suttavibh. ii. 35, spelt haliddhi, C. 317. The $r$ is retained in utrâsa $=$ uttrâsa, 'terror,' Jât. ii. 336, participle utrasta, Mil. 23, and utrassa, M. x. 2, 16 (uttasati occurs Att. 205, Jât. i. 326, uttasta, Jât i. 414); dudrabhi = dundubhi. 'drum ;' yâtrâ = yâtrâ, 'expedition ;', adrûbha, 'undeceitful,' M. x. 2, 17 (adûbha, Jât. i. 180). The group $d r$ is changed to $n d$ in sanda=sâdra, 'coarse,' to $j j$ in khujja=kshudra,
'small,' Saddhammop. 93 ; $d h r$ to $j j h$ in gijjha=gridhra 'vulture.'
(4) Labials: After $p$ the $r$ is assimilated, as in $p i y a=$ priya, 'dear;' pati $=$ prati, 'in return;' phositum from prush, 'to sprinkle,' M. vi. 14, 5, parippositvâ, M. i. 25, 15, paripphosaka, Gr. 140. $B r$ is generally retained, as in braviti, from brû, ' to speak,' brahman; bhr is assimilated, as. in sobbha $=$ ęvabbra 'cave; $m r$ only in the beginning of a word, as miyyati $=$ mriyate; in the middle a $b$ is developed out of the $m$ after which the $r$ disappears: $a m b a=$ âmra, ' mango;' tamba $=$ tâmra, 'copper.' $V r$ is assimilated to $v$ in the beginning, and to $b b$ in the middle of a word : vajati=vrajati, 'to go,' but giribbaja; abbuta $=$ avrata or avrita, ' undisciplined,' Dh. 47.
$R$, after a sibilant, is generally assimilated, as in sâvaka $=$ çrâvaka, 'a pupil;' massu=çmaçru, 'beard;' epenthesis takes place in siri=çrî, 'glory ;' dadd $d h a$ and $u d d h a$ are=dasra and usrâ according to Kacc. 333, but Weber Indische Streifen iii. 370 , identifies them with daṃshṭâ and ushtra.
$H r$ is assimilated in hesa $=$ hresha, 'neighing;' sateratá $=$ çatahradâ, 'hail ;' rassa = hrasva, 'short;' separated in hirî $=$ hrî, 'shame;' but hîlita $=$ hrîta and hîleti, Jât. ii. 258 , rahảda =hrada, 'pond.'
$L$ is on the whole treated very much like $r$; before gutturals and labials it is assimilated ; vaggul $\hat{\imath}=$ valgulî, ‘bat,' C. vi. 2, 2, Jât. i. 493; kin̈jaklhha=kiñjalka, 'a filament;' kappa=kalpa, 'time;' pagabbha=pragalbba, 'bold;' jamma=jâlma, 'reckless.' Exceptions are suñka =çulka, 'tribute;' suilkaghâta, 'smuggling,' Suttavibh. i. 47; gumba = gulma, ' thicket;' simbali= çâlmalî, 'the silk-cotton tree.' $L v$ is assimilated to $b b$ in kibbisa $=$ ㅇilvisha, 'fault;' to $l l$ in khallâta $=$ khalvâṭa, 'bald;' billa and bella, Jât. iii. 76,=vilva, 'the Vilva'tree,' but beluva=vailva
$L$ after gutturals and labials is generally separated by $i$, as in keilissati $=$ kliçyati (but parikissati, Fausb. S. N. xi.); kilomaka= kloman, ' the pleura,' Mil. 26; klesa, without epenthesis, occurs Dh. v. 88 ; pilavati=plavati, Dh. 59, Dîp. 56 ; vipalâvita, Jât. i. 326 ; piluvati, Mah. 230 ; pilakkha=plaksha, 'ficus infectoria,' Suttavibh. ii، 35, Jât. iii. 24; pilotiká = plota, 'a cloth ;' pihaka $=$ plîhan, 'the spleen;' ambila =amla, 'sour;' milakkha $=$ mleccha, 'a barbarian,' originally mlaska.
$R l$ gives $l l$, as in dullabha=durlablia, 'difficult to obtain.'
$L$ after sibilants and $h$ is generally separated by $i$, as in silâghâ =çlâghâ, 'praise;' silesuma and semha = çleshman, 'phlegm;' hilâdati=hlâd, 'to be glad.'
$V$ after gutturals, palatals and cerebals, is assimilated, as in pakka=pakva, 'ripe;' kathati=kvath, 'to boil ;' (also written kuth, Vinaya texts, ii. 57 , and koddh, Dh. 155), jalati=jvalati, 'to blaze;' kinṇa=kiṇva, ' yeast.'

After dentals it is also generally assimilated, as in cattâro $=$ catvâras; 'four;' taco=tvac, 'bark, skin,' comp., however, sanhavâka = çlakshṇatvak, Dh. 412 ; it remains unchanged in the suffix tvâ or tvâna, in iritvija=ritvij, ' the officiating priest:' and in the pronoun of the second person tvam, which is also found as tuvam and tam. Tv is changed into $c c$ in caccara $=$ catvara, ' court ;' anuvicca=anuviditvâ (comm. jânitvâ), Dh. 41, Jât. i. 459, Fausb. S. N. xi. 91. $D v$ is assimilated in dipa $=$ dvîpa, 'island;' uddâpa $=$ udvâpa, 'foundation of a wall' Mabâparin. 11 ; ubbâsiyati = udvas, 'to chase;' which is the correct reading at Mah. 45 for ubbâhiyati; it remains unchanged in dve, 'two' (also duve, but bâ $=$ dvâ in bârasa. ' twelve ') ; dvâra, 'door ;' advejjha = advaidhya, 'sincere,' Bv. ii. 110. $D h v$ is assimilated to $d d h$, as in addhâ=adhvan, 'road;' to $j j h$ in majjhâru, M. v. 13, 6, probably = madhvâlu, 'yam.'
$N v$ is changed to $m m$ in dhammantari=dhanvantari, Mil. 272 ; dalhadhamma $=$ drụḍadhanva, Trenckner, P. M. 60 (but gaṇdîvadhanvâ, Kacc. 182), comp. Prâk. dhamma, 'bow, Pâiyal. 37.

After a sibilant $v$ is generally assimilated, as in assa $=$ aça, ' a horse ;' sâmi=svâmin, 'lord,' but also suvâmi, Fausb. S. N. xi., suvâmini, Jât. iii. 288; it remains unchanged in svâina (or sâna, suvâna), = çvâ, 'a dog ;' sve (and suve), = çras, 'tomorrow;' ehisvâgata, 'come and be welcome,' C. i.. 13, 3, Suttavibh. i. 181. Epenthesis in suvatthi = svasti, 'welfare.'
 sometimes it becomes $b b h$, as in gabbhara $=$ gahvara, 'a cavern.'

A sibilant preceding or following an explosive is assimilated by the same and generally produces aspiration of the group.

Ksh is mostly changed to $k k h$ or $c c h$, as in cakkhu $=$ cakshus, 'eye;' gavakkha, 'bull's eye,' but gavacchita, Jât. i. 60 ; rulkika and vaccha=vriksha, 'a tree,' Mil. 209, Suttavibh. i. 179; $k h u d d a=\mathrm{kshudra}$, 'small' (chudda, 'mean,' is not the same word, but participle to the root chubh=kshiv, Trenckner, Mil. 130), kham $\hat{a}=k s h a m \hat{a}$, 'patience' and 'earth;' in the latter signification also chamâ, comp. Hem. ii. 18 ; akkocchi=akrukshît $\sqrt{ }$ kruç, Kacc. 13. Sometimes the aspiration is dropped, as in Takkasilá =Takshaçilâ,‘‘a city in the Punjab;' ikkia = riksha, 'a bear' (also written isa and issa in Abhidhânapp.), Okkâka = Ikshvâku. Patiss $\hat{u}$, 'obedience,' is = pratîkshâ according to Senart Mahâvastu 516; appatissavâsa occurs Jât. ii. 352.
$T s$ and $p s$ generally become $c c h$, as in jighacch $=$ jighatsâ, ' hunger;' châta, 'hungry, desirous,' and its opposite nicchâta, Fausb. S. N. 143, from psâ, sampaccliara (and vacchara, Saddhammop. v. 239)=saṃatsara, 'year;' bibhacca=bîbhatsa,
'loathsome;' and from the same root nibbhaccheti, ' to rebuke,' Jât. ii. 338. Exceptions are most of the roots beginning with $s$ when composed with the preposition $u t$, which gives the group ss, as ussada=utsada, 'desire,' Fausb. S. N. 14:9, generally used in the compound ussadaniraya, where Burnouf translates it 'protuberance,' comp. Mabâvastu 372 ; and the verb ussâdiyati, ' to be spoiled,' C. vi. 11, 3, Suttavibh. ii. 99. We find, however, also the regular form ucchadeti, Mil. 241 ; ucchâdana, 'rubbing the body with perfumes,' Gr. 10, Mil. 315 ; ucchanga = utsanga, ' the hip.'

Çe becomes $c c h$, as in niccharati=niçcar, 'to proceed.' An exception is niccitta (for niccita, corr.), 'thoughtless,' Dh. 173, Jât. ii. 298.
$S h k$ and sk generally become $k k h$, as nikkha or nekkha= nishka, 'golden ornament.' Exceptions are most of the roots beginning with $k$ when composed with the preposition nis, which in Samskṛit must result in shk, but in Pâli only gives $k k$, e. g., nikkaddhati, 'to expel,'=nishkrish ; we have, however, the group $k k h$ in nekkhamma $=$ naishkâmya, 'abandonment of desires,' Vinaya texts, i. 104; and in nikkhamati = nishkram, 'to depart' (nikkam only Mil. 245, Kh. 8) ; takkara=taskara, 'a thief;' avakkâra = avaskâra in avakkârapâtî, 'slop-basin,' M. iv. 1, 2.

Sht and shth become $t!t h$ in bhattha $=$ bhrashṭa, 'fallen' and =bhrishṭa, 'fried;' patthha = prashṭha, 'clever' (Buddhagh. cheka, samattha) Suttavibh. i. 210, ii. 60, 254, matṭha and matta $=$ mrishṭa, 'polished;' vatṭa $=$ vrishṭa, from vassati, 'to rain' (vutṭha, Jât. iii. 484) ; attaka=ashṭaka (Buddh. aḍdhaka), Suttavibh. i. 81; leddu=leshṭu, 'a clod of earth.'

St and sth generally become tth, as in adhivattha=adhivasta, 'living on' (adhivuttha, Mahâparin. 23), parivattha, and pari-
vuttha; apattha=apâsta, 'thrown away,' Dh. 27 ; pattha $=$ prastha, 'a measure of capacity;' att $t h i=$ asthi, 'bone.' Tt in niratta $=$ nirasta, 'rejected,' Fausb. S. N. 150 ; ĥ̂yattana $=$ hyastana, 'yesterday's;' bhaddamutta= bhadramusta, 'Cyperus rotundus,' M. vi. 3, 1 ; nettiṃsa $=$ nistriṃça, 'merciless,' Jât. ii. 77 ; urattâlim =urastâḍam, 'beating the breast,' Mil. 11. St remains in viddhasta=vidhvasta, 'broken;' it becomes ss in vassa=basta, 'goat,' but also bhasta, Jât. iii. 278.

Shp and $s p$ generally become $p p h$, as in $p u p p h a=$ pushpa, ' a flower ;' nipphala=nishphala, 'fruitless ;' pp in bappa or vappa $=$ bâshpa, 'a tear,' M. x. 2,13 ; vanappati = vanaspati, 'a tree,' duppûra = dushpûra, 'difficult to fill,' Dh. 392; nippâpa $=$ nishpâpa, 'sinless,' Dh. 37; poṭthabba for photțhabba, 'contact,' Jât. ii. 81 ; appoṭheti = âsphoṭayati, ' to snap the fingers.'

Groups of nasals with sibilants can either be assimilated or remain unchanged, or insert a vowel between the nasal and the sibilant, or change the sibilant to $\hbar$ with metathesis.
$C ̧ n$ and $s n: ~ p a n ̃ h a=$ praçna, 'question,' and paripañhati, 'to consider,' sinâna and nahâna=snâna, 'bathing ;' for sinâni, 'powder' Assalâyanasutta 13 comp. snânîya = cûrṇa, Pânini 3, 3, 113 schol.

Shn: uṇha = ushṇa, 'hot,' but sîtunnaka for sîtuṇhaka, M. viii. 10, 2 ; $\operatorname{taṇh} \hat{a}$ and tasiṇá = trishṇâ, ' thirst;' osaṇhati, C. v. 2,3 , is a derivative from saṇha = çlakshṇa, 'smooth.'

Çm, shm, sm : sita, mihita = smita, 'smile;' massu=çmaçru, 'beard;' gimha = grîshma, 'summer;' asman=açman, 'stone,' but amihanâ, Fausb. S. N. 71 ; amhe $=$ asme, 'us,' but asme, Jât. iii. 359 ; usmâ = ushman, 'heat,' Mil. 153 ; bhasma and bhesma $=$ bhîsma, C. vii. $4,8, \mathrm{Ab} .167$; raṃsi and rasmi $=$ raçmi, 'beam;' pamussati, 'to forget,' is derived by S . Gold-
schmidt, K.Z. xxv. 437, from a root smrish, to which also belongs Prâk. pamhusaï, pamhuṭ̣ha, Hem. iv. 75, 184, 258 ; and this derivation seems to be confirmed by the spelling pammuttha and pammussitvâ, Dh. 247, 243, Jât. iii. 511.

The groups $h n, h m$, generally show metathesis, as gaṇhâti= gṛihṇâti, ' to take;' jimha $=$ jihma, ' crooked,' spelt jima, Jầt. i. 290 ; $h n$ becomes $n t$ in majjhantika for majjhahnika, 'midday.'

The rules of the changes of three or more consonants are, on the whole, the same as those concerning two consonants which have just been laid down. When assimilation takes place an explosive prevails over the other consonants; sattha $=$ çastra, ' a weapon,' but fem. sattî = çastrî, ' a knife ;' uddha and $u b b h a=$ ûrdhva, ' high ;' tikkhina, tikka and tinha=tîkshṇa, ' sharp ;' kusina = kritsna, 'entire,' but subhakiṇha or ${ }^{\circ}$ kiṇna $=$ çubha-kritsna; dosina and junhâ = jyotsua, jyotsnâ, 'a moon. lit night;' anupakhajja=anupraskandja, 'having occupied;' uplâvita = utplâvita, 'floated,' Mah. 230; bhastâ = bhastrâ, ' bellows,' is only known from Abhidhânapp.
$R d r$ is changed to $l l$ in alla = ârdra, ' wet,' Prâk. alla, olla or ulla, Hem. i. 82, but we find also adda, Jât. i. 244, and add $\hat{a}=$ ârdrâ, 'name of a Nakshatra,' Ab. 58, addaka=ârdraka, 'green ginger,' Ab. 459; $r d h r$ becomes $d d h$ in vaddha $=$ vardhra, ' leather,' Jât. ii. 154, Ang. p. 110.

Tty and ttr, where they are not assimilated, are simplified into $t y$ and $t r$ or $t t$, as in ratyâ instr. of ratti = râtri, ' night ;' vimuttâyatana $=$ vimukti + âyatana, 'point of emancipation;' $u t r a ̂ s a$ and utrasta, or uttâsa and uttasta $=u t t r a ̂ s a, ~ u t t r a s t a, ~$ satra $=$ sattra, 'sacrifice ;' udriyati, M. iii. 8, 1, Suttavibl. i. 254 , stands for uddriyati, 'to split open,' and the substantive udrîyanam. occurs Jât. i. 72.

## § 13. Rules on Sandhi.

The rules on sandhi in Pâli may be divided into rules on vowel-sandhi, and rules on mixed sandhi where a vowel and a consonant are concerned. Consonantal sandhi does not occur in Pali. All the rules we are about to give only deal with the so-called external sandhi, as the rules on internal sandi form a part of the phonetics we have given above. We only speak here about the sandhi of words, the sandhi of compounds belonging to the chapter on the formation of the stem.

Word-sandhi is not imperative in Pâli as in Samskrit ; it only takes place in certain cases, and the MSS. vary greatly as to its use or neglect. In prose it is almost confined to indeclinables and pronouns, in juxta-position or in connection with a verb or a noun, as e.g., my ayam=me ayam, yan nûna= yad nûna, tasseva $=$ tassa eva, tatth Annanda, etc. The particles that are almost regularly found in sandhi are $c a, i t i(t i)$, api ( $p i$ ), eva, as kathañ $c a=$ katham ca, kiñcid eva = kiñci eva, tathâpi $=$ tathâ api, etc. The negative $n a$, followed by a vowel, generally loses its $a$, as $n^{\prime} a t t h i$, n'eva, nâhosi, which Trenckner, Pâli Misc. 81, prefers writing na tthi, as though the root as had lost its initial $a$. So he also writes tava 'ham, eva 'ham, Mil. 219; tattha 'ham and nâma 'ham, and the same with ayam, although nâmâhaṃ and nâmâyaṃ are equally frequent.

The other cases of word-sandhi in prose, without any indeclinable or pronoun, are divided by Childers into three categories: (1) a vocative beginning with a vowel is preceded by a word ending in a vowel, as gacch' âvuso, pañcah' Upâli, âyâm' Ananda; (2) a verb is preceded or followed by a noun in
grammatical relation with it, as utthâyâsanâ, âsanâ vutṭhâya, upajjhâyass' ârocesum ; (3) two nouns are in grammatical relation, as dukkhass' antam, dvîh' âkârehi.

In verse word-sandhi is much more frequent than in prose, under the influence of metrical exigency; in later texts, like Dîpavamsa, Mahâvamsa, Buddhavaṇısa, Cariyâpiṭaka, and especially Khuddasikkhâ, it is not uncommon that whole syllables disappear in a sandhi where it is required by the metre, as e.g. changula = chaḍangula, Mah. 211 ; dasahassî = dasasahassî, Bv. xiii. 21 ; ticattârı̂sahassâni, Bซ. xvi. 15.

## I. Vowel Sandhi.

$A+a, \hat{a}$ followed by a single consonant gives $\hat{a}$, as nâhosi= $n a+a h o s i, n a ̂ s a k k h i=n a+a s a k k h i$; if a double consonant follows the $a$ remains short, and an apostrophe is put generally after the terminating consonant of the first word, to show that a vowel has been dropped, as in $n^{\prime}$ atthi $=n a$ atthi, pan' añ̃am = pana añ̃am. In a few instances we find a long $\hat{a}$ before a double consonant, as nâssa = na assa, Dh. 23, comp. above the chapter on the quantity of vowels, p. 13. A short $a$ before a single consonant occurs also in a few instances, as $c^{\prime}$ aham, Jât i. 3 ; n' ahosi $=n a$ ahosi, Dh. 155.
$A$ or $\hat{a}+i$ or $\hat{\imath}$ gives $e$, as in Skt., e.g. kokilâyeva $=k o k i l a y a+$ $i v a, n e r e s i=n a$ îresi. An exception is $i t i$, which always gives $\hat{a} t i$ with a preceding a, e.g. Tissâti $=$ Tissa $i t i ; i$ is elided by a preceding $a$ in yena'me = yena ime, pana'me = pana ine; $\hat{a}+i$ sometimes gives $\hat{\imath}$, as seyyathîdam $=$ seyyath $\hat{a} i d a m$.
$A$ or $\hat{a}+u$ or $\hat{u}$ gives $o$, as in nopeti $=$ na upeti, pakkhanditodadhim = pakkhanditâ udadhim, Mah. 117. Seldom we find $\hat{u}$ instead, as cûbhayam $=c a u b h a y a m$.
$A$ is frequently elided by $i$ or $u$ whether followed by a
conjunct consonant or not, as in passath imam = passatha imam, yass' indriyâni = yassa indriyâni.
$A$ is generally elided before $e, 0:$ gaṇhath ${ }^{2}$ etaṇ $=$ gaṇhatha etam, $i v$ ' otatam = iva otatam.
$\hat{A}$ sometimes elides a following $i, u$ or $e$ in eva: disvâ' panissayam $=$ disvâ upanissayaṃ, sutvâ' va $=$ sutvá eva, Das. 4. Generally $\hat{a}$ is elided before a long vowel or before a short vowel followed by a conjunct consonant : tath' eva = tathâ eva, tay' ajja = tayâ ajja, seldom before a short vowel followed by a single consonant; muñitv' aham $=$ muñcitvâ aham; Jât. i. 13.
$I$ is generally elided before short or long vowels, as gacchâm' $a h a m=$ gachâmi aham, idân' ime $=$ idâni ime, dasah' upâgata $=$ dasahi upâgata, dvîh' âkârehí = dvîhi âkârehi, etc. Sometimes it remains and elides the following vowel: phalanti 'saniyo $=$ phalanti asaniyo, idâni 'ssa = idani assa; i+a occasionally gives $\hat{a}:$ kiñcâpi $=k i n ̃ c i ~ a p i, p a ̂ h a m=p i$ aham.
$\hat{I}$ is seldom elided : tuṇh' assa=tunhî assa; at Jât. iii. 414, we have dassâham = dâsî $+a h a m$.
$I+i$ gives $\hat{\imath}$ : palujjîti=palujji iti, Par. 40. : I preceded by $t(t t)$ and followed by another vowel may become $y$ : jîvanty elaka $=$ jîoanti elaka, guty ath $a=$ gutti atha. Generally, however, the group ty is changed to cc, especially when the first word is iti : iccevam = ity evam. The corresponding change of $d y$ to $j j$ is not attested by any good authority. Api followed by a rowel may become app through an intermediate apy: app $e v a=a p i$ éva; $i t v, t v$ for $i t i, t i$ is most probably only a corrupt spelling.
$U$ is elided before a vowel : samet' âyasmâ = sametu âyasmâ, tâs' eva = tâsu eva. Rarely it elides a following vowel : nu' ttha $=n u$ attha, kinnu' $m \hat{a}=k i n n u$ imá. $U+i$ sometimes gives
$\hat{u}: s \hat{a} d h \hat{u} t i=s \hat{a} d h u+i t i$. Before $a$ or $e$ it can be changed to $v:$ vatthv etth $a=$ vatthu ettha, sescsv ayam $=$ sesesu ayam.
$E$ may be elided before a long vowel or before a short vowel followed by a conjunct consonant : $m^{\prime}$ âsi=me âsi, sac' assa= sace assa; sometimes it elides a following vowel : te' $m e=t e$ ime, sace’ $\ddot{j a}=$ sace ajja, re’ yya $=$ re ayya, Mil. 124 ; осcasionally $e+a$ gives $\hat{a}$, as sacâyam $=$ sace + ayann, Dh. 140, 165; but the $e$ can also be turned into $y$, as if it were $i$, and an $a$ following lengthened by compensation when a single consonant follows: tyâham = te aham, myâyaṃ = me ayam, ty ajja=te ajja; exception, tyâssa $=$ te assa.
$O$ is elided before a long vowel or a short vowel followed by a double consonant : kut'ettha $=k u t o$ ettha, tay' assu $=$ tayo assu, tat' uddham = tato uddham. It elides a following vowel in so'ham=so aham, cattâro' me=cattâro ime, etc. $O+a$ gives $\hat{a}: d u k k h a ̂ y a \underset{~}{*}=$ dukkho ayaṃ, Jât. i. 168. $O$ can also be turned into $v$ (as $e$ into $y$ ) and an initial $a$ lengthened if followed by a single consonant: yvâham = yo aham, khvassa =kho assa, yveva=yo eva: exceptions, svâssu=so assu, Jât. i, 196 ; khvâssa = kho assa, Payoga Siddhi.

Euphonic consonants are often inserted when two vowels meet, to avoid a hiatus; especially the semi-vowels $y$ and $v$ are used for this purpose.
$Y$ is inserted between a word terminating in $a$ or $\hat{a}$, when followed by idam or any of the oblique cases of this pronoun which begins with $i: n a$ yidaṃ $=n a$ idam, mâ yime $=m a ̂ i m e$, yathayidam = yathâ idam with shortening of the $\hat{a}$. The same process takes place with eva and iva, which latter, however, is changed to viya by metathesis. When $a, \hat{a}$ is followed by $u, \hat{u}$, $v$ may be inserted for euphony: bhantâ vudikkhati $=$ bhantá udikkhati.

Sometimes a euphonic $m$ is inserted between two vowels: idha-m-âhu $=$ idha âhu, pariganiya-m-asesam $=$ pariganiya asesam, Girimânandasutta in Paritta, kapi-m-âgantvâ, Cariy. ii. 5,4 ; or $r$ if the following word is iva: âragge-r-iva = âragge $i v a$, sâsapo-r-iva $=$ sâsapo iva, sikhâ-r-iva = sikhâ iva, Mahâsamayas 21. Final $\hat{a}$ is shortened before this $r$ in yatha- - iva, tatha-r-iva = yathâ eva, tathâ eva, Kacc. 19.

In a great many cases a lost consonant is revived to avoid the hiatus, as in yasmâd apeti = yasmâd apeti, locid eva $=$ kaçcid eva, tunhîm âsina $=$ tûshṇìm âsîna, vuttir esâ $=$ vṛittir eshâ, chalabhiñ $\check{n} \hat{a}=$ shadabhijũâa, puthag eva $=$ prithag eva, pag eva $=$ prâg eva, with shortening of the $\hat{a}$, sammadañ $\tilde{n} \hat{a}=$ samyag âjñâ, with change of $g$ to $d$, and anvad = anvak in a passage of the Maggasamyutta quoted by Morris, ' Report on Pâli literature,' p. 5. Dhir atthu, Jât. i.59, stands for dhig atthu, vijjur eva for vijjud eva. Jât. iii. 464 we have jîvar eva for jîvann eva; attadatha stands for attanattha $=$ âtman +artha, satthud anvaya for satthur anvaya, punad eva for punar eva.

## II. Mixed Sandhi.

Original double consonants simplified by assimilation at the beginning of a word, can again be doubled after a word terminating in a vowel : yatra tthitam = yatra thitam for yatra sthitam. This is often done in verse when a long syllable is required.

In a few cases a lost final consonant is revived before a consonant, as yâvañ c' idaṃ = yâva ca idam, suhanus sahâ, Jât. ii. 31 , tayas $8 u=$ trayas svid, Kh. 9 .

As we have seen above, p. 45, sometimes anusvâra stands for an original consonant, and in this case before a vowel it is liable to be replaced by the original cousonant. Sakrit becomes
sakim. in Palli, but before a vowel we have sakid; in the same way we have tad for tam, yad for yam, etc.

In verse when a short syllable is required, anusvâra can be elided before a consonant: no ce muñceyya' candimam for muñceyyà Candaparitta, âkañkha virâgam for âkañkham, Dh. v. 343. Or else the whole syllable may be dropped, as in rajovajall' ukkuṭikappamấnaṃ as the metre requires, Dh. v. 141; piyân' adassanaṃ for piyânam, Dh. v. 210 ; pâpân’ akaraṇam, for pâpânam, v. 333 ; nipajj’ aham for nipajjim., Jât. i. 13. When the anusvâra is dropped the remaining $a$ can be contracted with a following $a$ to $\hat{a}$, as in saccâham=satyam aham, Suttavibh. i. 190 ; labheyyâham=labheyyam aham, Parin. 59; idâhaṃ=idạ̣ + ahaṃ in the phrase ekam idâham samayam, comp. Oldenberg, K.Z. xxv. 325.

Only in late texts an anusvâra can elide a following vowel, as cîrassam' dhunâ for adhunâ, vassantam 'malakam in two passages from Pâli Burmese books quoted by Oldenberg, 'India Office Catalogue, p. 121,' sovaṇnamayam 'nuñnâtaṃ for anuñ̃âtam, Khuddasikkhâ, xxxvi. 15.

## § 14. Declension.

We distinguish in Pâli, as in Samskrit, stems ending in vowels and stems ending in consonants, and according to this division the whole declension of substantives and adjectives is arranged. It must however be remarked, that the vowel stems have largely encroached upon the consonantal stems, and that only frayments of a consonantal inflexion have remained. Especially consonantal stems identical with ronts, which are frequent enough in Samskrit, have almost totally disappeared from Pâli, and have been replaced by dissyllabic stems increased by the addition of a vowel. A careful investigation of the old
texts has only yielded the following instances of consonantal root-stems : taco, pl. of tvac, 'skin,' Dh. 111, Kh. 3; pâdâ, instr. of pad, 'foot,' Dh. 164 ; vâcâ, instr. of vâc, 'speech,' Kh. 9 ; pamudi, loc. of pramud, ' joy,' Gr. 139 ; parisati and parisatim, Suttavibh. ii. 285, loc. of parishad, 'assembly.'

There are two possibilities of turning these consonantal stems into vowel-stems: (1) The terminating consonant is dropped, and the word passes into the declension of that vowel which now stands at the end, e.g. upanis $\hat{a}=$ upanishad ; $\hat{a} p \hat{a}=$ âpad, Jât. ii. 317, which are inflected like feminine $\hat{a}$-stems; âsi $=$ âçis, ' blessing,' inflected like an $i$-stem ; maru $=$ marut, name of a 'deva,' inflected like an $u$-stem. (2) The stem is increased by the addition of an $a$ (which may represent originally the termination of the acc. sing., comp. however Pischel, Beitr. iii. 262), and the word is now inflected like an $a$-stem. masculine, feminine or neuter, according to the gender of the original noun. Such instances are kita $=$ krit, and visagata for visakata $=$ vishakṛit, Suttavibh. i. 80 ; tivutâ $=$ trivṛit, name of a 'plant;' barihis $a=$ barhis, 'sacrificial grass.' Sometimes the gender is cbanged, as in sarado m. 'year' = çarad f. comp. Pischel gramm. Prâc. 5 ; Beitr. iii. 240. Change of gender is very frequent in Pâli, as for instance in vacîbheda, Khuddasikkhâ xl. 1, we have instead of $\hat{a}$ the thematic vowel $\hat{\imath}$, and as this is also found in some other compounds, $I$ do not believe that vaci is a locative like tvaci in tvacisâra, Pâṇ. vi. 3,9 ; comp. Jainaprâk. vatîjoa Beitr. 5. $\hat{A} p$ is generally used in the nom. pl. âpo, we find however a gen. âpassa, Mil. 363.

Only very few vestiges of the dual occur in the texts known to us at present: to idh' âgato, 'these two having come,' Dîp. 56 ; ubho $=$ ubhau, Dh. v. 74, 306 ; mâtâpitu, 'father and mother,' Cariy. ii. 9, 7, if this does not stand for the ace.
'opitrîn. Generally the plural replaces the dual even in such cases as jayampatî and tudampatî, ' man and wife,' where the meaning clearly points to a duality.

## I. Vowel Bases.

Masculine and Neuter in $a$. Dhamma, 'The Law.'

Singular.
Nom. dhammo.
Voc. dhamma, dhammâ.
Acc. dhammam.
Instr. dhammena.
Dat. dhammassa (dhammâya). dhammânam.
Abl. dhammâ, dhammasmâ, dhammamhâ.
Gen. dhammassa.
Loc. dhamme, dhammasmim, dhammamhi.

Plural.
dhammâ, dhammâse.
dhammâ.
dhamme.
dhammebhi, dhammehi.
dhammebhi, dhammehi.
dhammânam.
dhammesu.

Rûpa, 'The Image.'
Singular.
Plural.
$\left.\begin{array}{l}\text { Nom. } \\ \text { Voc. } \\ \text { Ace. }\end{array}\right\}$ rîpam.
Instr. rûpena.
Dat rûpassa (rûpâya).
Abl. rûpâ, rûpasmâ, rûpamhâ.
Gen. rûpassa.
Loc. rûpe, rûpasmim, rûpamhi.
rûpâni, rûpâ.
rûpâni, rûpe.
rûpebhi, rûpehi.
rûpânam.
rûpebhi, rûpehi.
rûpânam.
rûpesu.

The form given in the table as dative is, properly speaking, the genitive = Skt. dharmasya, rûpasya, which has taken up the functions of dative in Pâli. The old dative in âya, which I have given in paranthesis, is only used to denote the intention, and is almost synonymous with an infinitive; only few instances occur where the dative has a terminative meaning as Dh. v. 174, saggâyn gacchati, 'goes to heaven,' and Dh. v. 311, nirayâya upakaddhati, 'brings to hell,' comp. Pischels remarks, Beitr. zur kunde d. indog. Spr. i. 111, 119 ; lokânukampâya $=$ lokam anukampitum, 'through compassion for the world;' na patthaye nirayam dassanâya, 'I do not wish to see the hell.' Especially the dative atthâya is used frequently with the meaning 'for the good of, for the sake of,' as in Buddhassa atthâya jîvitain pariccajâmi, ' for Buddha's sake I will lay down my life,' comp. Childers, s. v. We have also an abridged form atthâ used in the same sense, e.g. in bhojanatthâ, 'for the sake of food,' Jât iii. 425. Other instances of this abridged dative are esanâ = esanâua, 'in search of,' Ten Jât. 48, 81 ; anâpucchâ = anâpucchâya, ' without asking leave,' comp. paripucchâya; Mil. 93 ; lâbhâ in such sentences as lâbhâ vata no, 'this is for our advantage,' which Childers explained as a dative, is in reality a nom. fem. identical with the masc. lâbha, comp. Senart Mahâvastu 550.

The ablative stands for the instrumental in $j a v \hat{a}$, 'speedily,' Dîp. 23 ; and ahimsâ, 'through pity,' Dh. v. 270. The suffix sả is very often also used to denote an instr., as in vâhasâ, ' by dint of,' Mil. 379 ; Suttavibh. ii. 158 (comp. the v. l.) ; talasâ, ' by the sole of the foot' (com. pâdatalena), Jât. ii. 223 ; rasasâ, 'by taste,' Jât. iii. 328 ; bilasâ, padasâ, Kacc. 91 ; balasâ, ' by force,' Cariy. ii. 4, 7.

In the ablative the terminations in dhammasmâ, dham
mamhâ, and in the loc., dhammasmim, dhammamhi, are taken from the pronominal inflection. Besides, we have two other terminations for the ablative, $t o=$ skt. tas, and $s o=$ ças, which occur mostly in later texts, but also in a few instances in the Jâtaka and Dhp. Instances are gananâto, 'by number,' Jât. i. 29 ; câpûto, 'from the bow,' Dh. v. 320 ; devato, 'from a deva,' Bv. xvi. 7 ; orato pârặ gacchati, pârato oram ágacchati 'goes from this end of the field to the further end and back again from the far end to this,' Jàt. i. 57 ; mettâto, ' from friendship,' Saddhammop. v. 487, 489. With so we have bhâgaso, ' by portion,' Mil. 330 ; parivattaso, ' by turns,' Mahâparin. 60; tị̂i yojanaso, 'three yojanas wide,' Bv. xxi. 24.

In the locative the forms in $e$ and in $s m i m$ or $m h i$ are almost equally frequent already in earlier texts, see Torp, Die Flexion des Pâli, p. 18. The forms bilasi and padasi given by Kacc. 91 do not occur anywhere else. The locative is used instead of a dative in brâhmaṇe, Cariy. i. 9, 47.

In the nom. pl. of the masculine we have a form in ase which corresponds to the vedic nom. pl. in âsas, as panditâse, 'the learned,' Fausb. S. N. xi. 167 ; rukkhâse, 'the trees,' Jât. iii. 399, comp. Oldenberg, KZ, xxv. 315.

The acc. pl. of the masculines in $e$ is somewhat difficult to explain: Kuhn compares it to the vedic pronominal forms asme, yushme, which are used likewise for the nominative and accusative, and refers to the explanation offered by Schleicher, Compendium p. 611 for these forms ; comp. Torp p. 19, S. Goldschmidt, KZ. xxv. 438.

The instr. pl. in ebhi or ehi quite corresponds to the vedic form in ebhis (or to the ablative in ebhyas, as the forms are the same in Pâli). Instances for the form in bhi are given by Oldenberg, KZ. xxv. 316, 317. In old texts we find besides a
form in $e$ corresponding to the instr. of the classical Samskrit in ais, for inst. vanipake, used as a dative, 'to the beggars,' Cariy. i. 4, 9 ; yâcake, ib. i. 8, 12; adhane âture jịnne yâcake patthike jane samanabrahmaṇe khịṇe deti dânam akiñcane, ib. i. 1,9 ; guñe dasah' upâgataṃ, instr., Jât. i. 6.

In the plural of the neuter we have the regular form cittâni for nom. and acc., and besides rûp $\hat{a}$ for the nom., and rupe for the acc., which are both taken from the masculine declension. Thus we have satte dukikh pamocayi, 'he released the beings from pain,' Mah. 2 ; pâne vihiṃsuti, v.l. for pânâni himsati, 'he hurts living creatures,' Vasala sutta v. 2. The same confusion of gender occurs in pabbatâni, Dh. v. 188 (probably through attraction from vanâni), in dukkhâ, 'sorrow,' which may be used as neuter and masc., and (according to Fausböll), even as fem.

In the locative pl. Childers gives a form milakkhusu from milakkha, 'a barbarian,' but without any reference.

Feminine in $\hat{a}$.

## Kaññâ, 'The Girl.'

Singular
Nom.
Voc. kaññe.
Acc. kañ̃ạ̀.
Iụstr. kañ̃̃âya.
Dat. kaññâya.
Abl. kaññaya.
Gen. kaññaya.
Loc. kaññâyaṇ, kaññâya.

Plural.
kaññâ, kañ̃nâyo.
kañnâ, kañnayo.
kañña, kaññâyu.
kañnâbhi, kañnâhi.
kañãanam.
kañãâbhi, kaññâhi.
kañ̃âanam.
kañãäsu.

In the vocative we have the following exceptions: ammú,
$a n n \hat{a}, a m b \hat{a}, t a ̂ t a ̂$, all signifying ' mother,' form the voc. like the nom., Kacc. p. 64 ; of $a m m a ́$, we have besides a voc. amma, frequent in Db . The loc. $k a \dot{\tilde{n}} \tilde{n} a y a$ is taken from the genitive. For the nom. pl. in $\hat{a}$ and $\hat{a} y o$, comp. Oldenberg, Kz. xxv. 317.

Masculine and Neuter in i.

> Aggi, 'The Fire.'

Singular.
N. \& V. aggi.

Acc. aggin.
Instr. agginâ.
Dat. aggino, aggissa.
Abl. agginâ, aggismâ, aggimhâ.
Gen. aggino, aggissa.
Loc. aggismim, aggimhi.

Plural.
aggayo, aggn.
aggî, aggayo.
aggîbhi, aggîhi.
aggînam.
aggı̂bhi, aggîhi.
agginam.
aggîsw.

Akkhi, 'The Eye.'

Singular.
N. \& V. akkhi, akkim.

Acc. akkim.
Instr. akkhinâ.
Dat. akkhino, akkhissa.
Abl. akkhiná, akkhismâ, akkhimhâ.
Gen. akkhino, akkhissa.
Loc. akkhismim, akkhimhi.

Plural.
akkhîni, akkhî.
$a k k h i ̂ n i, a k k \cdot h \hat{i}$.
akkhîbhi, akkhîhi.
akkhînam.
akkhîbhi, akkhîhi.
akkihinam.
$a k k h i ̂ s u$.

A voc. ise, corresponding to the Skt. rishe, occurs in Rûpasiddhi, and Jât. xix. 1, 2. A gen. mune, is given by Oldenberg, KZ. xxv. 318. The ancient loc. in 0 , is only formed from the stem $\hat{a} d i$, according to Kacc. $41, \hat{a} d o$ and $\hat{a} d u, \mathrm{Dh} .96$;
a loc. gire, after the analogy of the $a$-stems, occurs Jât. iii 157. An instr. after the same analogy is buddharamsena, Bv. x. 28. Besides, we very often, especially in Dîp., find the simple stem used for almost any case of the sing., see Oldenberg, KZ. xxv. 318.

A nom. pl. aggino, is found Saddhammop. v. 586, together with the regular form aggayo. In the oblique cases of the plural we only find the short $i$ occasionally in verses, as $\tilde{n} a ̂ t i h i$, paṭisanthâravuttinam, Dh. 146.

Instances of the nominative accusative of neuters in $m$, formed after the analogy of the $a$-stems are not very frequent, but numerous enough to show that the form really exists : akkhim, Dh. 140; at! him, Das. J. 5, 12. The nominative plural akkhî, occurs Dh. 82.

> Feminine in $\check{\check{i}}$.
> Ratti. 'The Night.

Singular.
N. Voc. ratti.

Acc. rattim:
Ins. Abl. rattiyâ.
D. Gen. rattiyâ.

Loc. rattiyam, rattiyâ.

Plural.
rattiyo, rattî.
rattî, rattiyo.
rattîbhi, rattîhi.
rattînam. rattîsu.

The nominative plural rattî, is formed exactly like the corresponding form of the masculine stems aggi, most probably after the analogy of the $a$-stems (Torp. 41). In the genitive sing. we have a form kasino like aggino in Kasibhâradvâjasutta v. 1, and in the locative ratto $=\hat{a} d o$, Dh. v. 299. The locative singular in $\hat{a}$, is properly speaking a genitive, as we have noticed also in $k a \tilde{n} \tilde{n} \hat{\iota}$ confusion between these two cases. Instead of the group $i y$ in the oblique cases of the singular, and in the
nominative accusative of the plural, we also find simple $y$, and this may be contracted with a preceding dental according to the rules given above, p. 49. In this way we obtain forms like nikatya, from nikriti, ' fraud,' Jât. ii. 183, nikacca with shortened $\hat{a}$, Suttavibh. i. 90 ; jaccâ for jâtiyâ; sammuccâ for sammutiyâ, etc., comp. Fausb., introd. to the Suttanipâta transl. p. xi. Instead of rattiyâ we have ratyâ, Dh. 178.

The declension of the stems in $\hat{\imath}$ is very much the same as of those in $\breve{\imath}$ :

## Nadi, 'A River.'

Singular.
N. Voc. nad̂̂.

Acc. nadim.
Ins. Abl: nadiyâ, nadyâ, najjâ.
D. Gen. nadiyâ, nadyâ, najja.

Loc.
nadiyam, najjam, nadiyâ. nadisu.

In the ablative singular we have a contracted form pesi for pesiyá, Mil. 421, an ablative in to is sirito from sirít çrî, Samanta Pâs. 304. From dabb̂̂, 'spoon,' we have the genitive davyâ, Jât. iii. 218. The nominative plural najjo occurs only Kacc. 56. An enlarged form of the genitive plural in iyinam, is met with in a few examples: bhaginîyânaṃ, Mah. 4 ; tevîsatiyânam, Dh. 117; caturasîtiyânam, Dh. 350 ; it supposes a nominative singular in iyâ, like çriyâ for çrî in the Samskrit of the Northern Bhuddhists.

The declension of itthî or thî $=$ strî, 'a woman,' follows nadî in general ; in the acc. singular we have an additional form $\mathrm{itthiyam}=$ striyam, in the genitive thiyam = stryâm, in the locative itthiya.

Masculines and Neuters in $u$.
Bhikkhu, 'A Mendicant Friar.'
Singular.
Nom. bhikkhu.
Voc. bhikkhu.
Acc. bhikkhum.
Instr. bhikkhunâ.
D. G. bhikkhuno, bhikkhussa.

Abl. bhikkhunâ, bhiklchusmâ, bhikkhumhîa.
Loc. bhikkhusmim, bhikkhum- bhikkhûsu. hi.
In the voc. sing. we find Sutano, Jât. iii. 329. A rest of the old gen. in os, survives in hetu $=$ hetos, Dh. v. 84. In the oblique cases of the plural again we find the short $u$ (like the short $i$ ) occasionally in verses, as jantuhi, Anecd. 33 ; bhikkhusu, Dh. v. 73 ; jantunam, Ten. Jât. 91. A form bahunnam with double $n$ instead of $\mathfrak{u}$ occurs Dh. 81. Irregular forms of the nom. pl. are jantuno and mittaluno from mittadu=mitradruh, Mah. 10 , jantuyo and hetuyo.

Masculines terminating in $\hat{u}$ keep it in the nom. sing., as abhilhû, Dh. 255, but shorten it in the other cases. The plural is abhibhu or abhibhuvo, from sabbañ $\overline{\hat{u}}=$ sarvajñâ: sabbañ̄̄̂̂ or sabbañ̃̃uno, from sahabhû: sahabĥ̂, sahabhuvo, sahabhuno.

The neuters in $u$ form the nom. voc. acc. pl. either in $\hat{u}$ or $\hat{u} n i$, as $m a d h \hat{u}$ or madhûni. The nom. and acc. sing. can take $m$ like the corresponding forms of the $i$-stems, as cakkhum udapâdi, Kacc. 27.

Feminines in $\check{\bar{u}}$.
Dhenu, 'A Cow.'

Singular.
N. V. तhenu.

Acc. dhenum.
I. A. dhenuyâ.
D. G. dhenuyâ.

Loc. dhenuyam, dhenuyâ.

Plural.
dhenuvo, dhenuyo, dhenî.
dhenû, dhenuyo.
dhenûbhi, dhenûhi.
dhenûnam.
dhenûsu.

The nom. pl. dhenuro occurs Dh. 237, where Fausböll has altered it to dhenuyo. Bhî, 'the earth,' makes in the loc. sing. bhuvi, Kacc. 45 ; massu, though being a neuter, forms its gen. according to the fem. fashion massuyâ, Jât. iii. 315. An abl. with the termination to occurs in natthuto, 'into the nose,' M. viii. 1, 11, jambuto, Bv. xvii. 9, the loc. dhâtuyı̂, C. ix. 1, 4.

The feminines terminating in $\hat{u}$ follow the declension of dhenu with the only exception of the nom. sing., which may adopt the form in $\hat{u}$ as vadh $\hat{u}$, 'a wife,' Ab. 230 (but vadhu, Suttavibh. i. 18) ; sarabh $\hat{\imath}=$ sarayu, 'name of a river ;' cam $\hat{u}=$ camû, 'an army;' pâdû $=$ pâdû, 'a shoe;' sassî $=$ c̣vaçrû, ' mother-in-law.'

Stems ending in a diphthong.

> Go, 'A Cow.'

Singular.
N. V. go.

Acc. gavam, gâvam, gâvum.
Instr. gavena, gâvena.
D. G. gavassa, gûvassa.

Plural.
gavo, gâvo.
gavo, gâvo.
gobhi, gohi.
gavan?, gonam, gunnam.

Singular.
Abl. gavâ, gâvâ, gavasmâ, gâ- gobhi, gohi. vasmâ, gavamhâ, gâvamhâ.
Loc. gave, gâve, gavasmim, gosu, gavesu, âvesu. gâvasmị̣, gavamhi, gâvamhi.
We find throughout the declension a new stem, gava or gâva, which is inflected like a masculine $a$-stem ; we meet even with a nom. pl. gavâ, Jât. i. 336, together with the nom. pl. gâviyo, of the fem. $g \hat{a} v \hat{\imath}$.

All other diphthongic stems have disappeared in Pâli : nau has become nâvâ following the declension of the feminine $\hat{a}$ stems, dyu has become divo with the only exception of the instr. sing. divâ, which is used like an adverb in Pâli.

## Consonantal Stems.

Stems in nasals.
These are considered by the native grammarians as belonging to the vowel-stems.
(1) in $a n$.

$$
\text { Attan }=\text { âtman, 'Self.' }
$$

Singular.
Nom. attâ.
Voc. atta, attâ.
Acc. attânam, attam.
Instr. attanâ, [attena].
D. G. attano.

Abl. attanâ.
Loc. attani.
Plural.
attâno.
attẩno.
attâno.
attanebhi, attanehi.
attânam.
attanebhi, attanehi.
attanesu.

A parallel form is $\hat{a} t u m \hat{\imath}$ with the same inflexion, and besides, tumo, Fausb. S. N. 170. The instr. attena, the abl. attasma, attamh $\hat{a}$, and the loc. attasmim, attamhi, given by Clough, have not yet been found in any old text.

> Brahman, 'Brahma.'

## Singular.

Nom. brahmâ.
Voc. brahme.
Acc. brahmânam, brahmam.
Instr. brahmanâ, brahmunâ. brahmelhi, brahmehi.
D. G. brahmuno, [brahmassa]. brahmânam, brahmunam.

Abl. brahmanâ, brahmunâ. brahmebhi, brahmehi.
Loc. brahmani.

Plural.
brahmâno.
brahmâno.
brahmâno.
brahmesu.

The voc. sing. brahme, Kacc. 96, is formed after the analogy of the $i$-stems.

## Raijan, 'A King.'

## Singular.

Nom. râjâ.
Voc. râja, râjấ
Acc. râjânam, râjam.
Instr. raññâ, râjena.

## Plural.

râjâno.
râjảno.
râjâno.
râjûbhi, râjûhi, rảjebhi, râjehi.
D. G. rañño, râjino, [râjassa]. raññam, râjûnam, rájânam. Abl. raññâ.

Loc. raññe, râjini.
râjûbhi, râjủhi, râjebhi, râjehi.
râjûsu, râjeşu.

We find an instr. mudldhanâ from mucldhầ, 'the head,' Mah. 117, and a loc. muddhani, ib. 108; an instr. râjanâ, which

I think cannot be correct, has been given by Faushöll, Jât. iii. 180, and a gen. rañ̃̃assa, Jât. iii. 70. The forıns râjam, rîjena suppose a stem râja, râjino and râjini are simply formed by epenthesis; in the plural we have to adopt a stem raju, from which all the cases can be derived. The legend PaONANO PAO on the Indobactrian coins does not represent a Pâli form râjunânam râjâ with double suffix, as Kuhn believed, but is a Skythian title formed on the model of râjâdirâjâ, comp. Oldenberg, Ind. Ant. x. 215 note.

Some substantives belonging to this declension in Samskrit follow the $a$-declension in Pâli, as Vissakammo = Viçvakarman, ' name of a celestial architect,' spelt Vissulkamma, Cariy i. 9, 41; vivattachaddo $=$ vivrittachadman, 'one by whom the veil is rolled away;' puthulomo = prithuloman, 'a fish;' athabbana $=$ atharvan, yakana $=$ yakan, 'the liver ;' chaka, chakana $=$ ȩakan, 'dung.'

## Yuvan, 'Young.'

Singular.
Nom. yuvâ.
Voc. yuva,yuvâ,yuvâna,yuvânâ.
Acc. yuvânam, yuvaṃ.
Instr. yuvânû, yuvânena, yuvena.
D. G. yuvânassa, yuvassa.

Abl. yuvânâ, yuvânasmâ, yuvânamhâ.
Loc. yuvâne, yuvânasmim, yuvânamhi, yuve, yuvasmim, yuvamhi.

Plural.
yuvãno, yuvânâ.
yuvâno, yuvânâ. yuvâne, yuve.
yuvânebhi, yuvânehi, yưvebhi, yuvehi.
yuvânânam, ไıuvânam.
yuvânebhi, yuvânehi, yuvebhi, yuvehi.
yuvânesu, yuvâsu, yuvesu.

Most of these forms suppose a new stem yuvâna, formed from the acc. sing. Besides we have a stem yana, from which the nom. sing. yûno, f. yûn $\hat{\imath}$, is formed, according to Kacc. 328.

$$
\boldsymbol{S} \hat{a}=\text { çvan, ' }^{\prime} \mathrm{A} \text { Dog.' }
$$

Singular.
Nom.
Voc. sa.
Acc. sam. [sânam].
Instr. sena.
Dat. sâya, sassa.
Abl. sâ, sasmâ, samhâ.
Gen. sassa.
Loc. se, sasmim, samhi.

Plural.
$s \hat{a},[$ sâno $]$.
sâ.
se.
sâbhi, sâhi.
sûnam.
sâbli, sâhi.
sânam.
sâsu.

Besides we have for the nom. sing. the forms sâno, svîno, suvâno, sono and sûno. Other words following the same inflection are paccaklihadhamm $\hat{u}=$ pratyakshadharman, 'whose virtues are evident,' and gandîvadhanvâ, 'using the bow Gâṇ̣̣îva,' Kacc. 182.

A few substantives form only some cases according to the nasal inflection, while the other cases follow another declension, as kammam=karman, 'action,' which forms the 'iustr. sing. kammunâ, kammanâ and kammena, the gen. kammuno and kammassa, Pât. 11; abl. kammâ, Dh. v. 127, loc. kummani. Thâmo $=$ sthâmas, 'strength,' forms part of its cases after the nasal inflection as the instr. thâmunâ, Kacc. 81, but generally thâmasâ, Suttavibh. ii. 134, Mah. 143 (Turnour thâmavâ), gen. thâmuno. In the same way addhâ=adhvan, 'a road,' forms addhano and addhuno ; bhasmam = bhasman, 'ashes,' loc. bhasmani.

$$
P u m \hat{u}=\text { = pumz, 'a man.' }
$$

Singular.
Nom. pumâ.
Voc. pumam.
Acc. puman.
Instr. pumânâ, pumunâ, pumena.
D. G. pumuиo, pumassa.

Abl. pumunâ.
Loc. pumâne, pume, pumasmim,

Plural.
pumâno.
pumâno.
pumâno.
pumânebhi, pumânehi. pumánam.
pumànebhi, pumânehi.
pumâsu, pumesu.
pumanhi.
A nom. sing. pumo occurs Cariy. iii. 6, 2, similar to tumo $=$ âtmâ, Fausb. S. N. 170.
(2). Adjectives terminating in mant and vant.

> Gunavant, 'virtuous.'

## Singular.

Nom. guṇavâ, guñavanto.
Voc. gunavam, guṇava, guṇavâ.
Acc. gunavantan, gupavam.
Instr. guṇavatâ, guṇavantena.
D. G. gunavato, gunavantassa,

## gunavassa.

Abl. gunavatâ.
Loc. gunavati, gunavante, gunavantasmim, gunavantamhi.

Plural.
gunavanto, gunavantâ.
gunavanto, gunavantá.
gunavante.
gunavantehhi, gunavantehi.
guṇavatạ, gụavantânạ.
gunavantebhi, gunavantehi. gunavantesu.

The neuter has in the nom. boc. acc. sing. gunavam, pl. gunavanti, gunavantâni. The fem. is made by adding $\hat{\imath}$ to the strong or the weak form, gunavantî or yunavatî; it follows the declension of the $\hat{\imath}$-stems.

The participles in ant follow this declension with the only exception of the nom. sing. which they form in am or anto, as gaccham, gacchanto, 'going.'

A nom. from the weak form jivvato for jivanto occurs in a verse, Jât. iii. 539 ; an acc. vajataụ, Vasala Sutta, v. 6 ; asatam, Dh. v. 73, Vasala Sutta v. 16. From the root kar we have the part. nom. pl. masc. karontâ, Dh. v. 66 ; nom. sing. fem. karontî, Dh. 246 ; gen. sing. masc. karoto, Dh. v. 116 ; instr. samlkhârontena, in a passage of Petavatthuvaṇṇanâ quoted I. O. C. p. 79 ; all.these forms follow the 3rd pers. pl. karonti. Besides we have the gen. anukubbassa, Jât. iii. 108, rendered in the Mahâvastu by kṛityânukâryasya.

Arahant, 'an Arhat,' forms the non. sing. araham and arahâ, the former being the regular one, the latter following the analogy of mahâ. In the nom. pl. we have arahanto and arahâ, Dîp. 30, Aneed. 7. A similar nom. pl. mahâ occurs Ab. 413. Kacc. 94 gives a nom. sing. mahann which does not occur anywhere else; the nom. sing. mahâ occurs separately, Dh. 298, Mah. 132, and besides very often in compounds.

In the pl. we have one instance of an old form sabbhi= sadbhis, Dh..v. 151.

In the neuter nom. sing. we have the forms brahâ, Ab. 700, madhuvâ, Dh. v. 69 ; asaṃ=asat, Jât. ii. 32.

Of participles of the perfect in vaṃs we have bhayadassiva $\hat{a}=$ - darçivams ; vidvaṃs forms nom. sing. aviddasu, Dh. 47; nom. pl. aviddasu, C. xii. 1, 3 ; besides we have sabbavidû, Dh. v. 353 ; lokavidû=lokavid of the Northern Buddhists, Lotus 860.

Bhavam, 'Sir.'
Singular.
Nom. bhavam.
Voc. bho, bhonta.
Acc. bhavantam, bhotam.
Instr. bhavatâ, bhotâ, bhavantena.
D. G. bhavato, bhoto, bhavantassa.

Abl. bhavatâ, bhotâ.
The fem. shows the forms bhavantî, bhavatî, bhotî, Pl. bhotiyo.
(3). Stems in in.

Dandin, 'a mendicant.'

Singular.
Nom. dandî.
Voc. dandi.
Acc. dandinam, dandim.
Instr. danḍinâ.
D. G. dandino, dandissa.

Abl. dandinâa, dạndismâ, dandimhâ.
Loc. dandini, dandismim, daṇ- dandîsi.

Plural.
dandino, dand $\imath$.
dandino, dandî.
dandino, dand $\uparrow$.
dandî̀hhi, dandîhi.
dandiñam.
dandîbhi, dandîhi. dimhi.

At M. vi. 28, 11, we have an acc. pl. brahnacariye, of brahmacârin, 'holy;' and at Mabâparinibb. 16, we have the same passage with the v. l. brahmacârayo; the nom. pl. sabrahmacirrî occurs Mahâparin. 5. Dîpî=dvîpin, 'a leopard,' forms the nom. pl. dipipiyo, Jât. xiv. 1, 27. The oblique cases of the plural bave a short $i$ only in verses: pâninam, Dh. 135, amuyoginam, Dh. v. 209. An instance of a nom. sing. with $\ell$ is setten $h^{i}$
$=$ çreshțin, 'a treasurer, merchant,' Jât. i. 120, 122, where all MSS. agree in the spelling.

Examples of an enlarged stem are sâramatino nom. sing. $=$ sâramati, Mil. 420 ; verinesu from verin, 'hostile,' Dh. v. 197.
(4). Stems in $r$.

Satthâ = çâstri, ' the teacher.'

Singular.
Nom. satthâ.
Voc. sattha, satthâ.
Acc. satthâram, sattharam.
Instr. sattharâ, satthârâ, satthunâ.
D. G. satthu, satthussa.

Abl. sattharâ, satthârâ.
Loc. satthari.

Plural.
satthâro.
satthâro.
satthâro, satthâre.
satthârebhi, satthârehi.
satthânam, satthârânam satthârebhi; satthârehi. satthâresu.

Here also some stems have adopted the $a$-declension, as sallakatta=çalyakartri, 'a physician,' Mil. 110, Att 208, to which Cbilders compares nâhapita=snâpitri, 'a barber;' kattara =kartrí, 'a weak man,' in kattaradanda, M. v. 6, 2 ; kattarasuppa, M. vii. 1, 4; and theta=sthâtri, 'firm,' Gr. 5. In composition the base generally terminates in $u$, as sotu=çrotri, 'hearer,' Daṭh, vi. 6 (the gen. pl. sotûnam occurs in a passage of the Mahâvagga of the Dîghanikâya, quoted I. O. C. 69); bhattu=bhartri, 'husband,' Jât. ii. 348 ; mandhâtu= mandhâtṛi, Jât. ii. 310. The voc. sing. sattha occurs Kacc. 116 ; the acc. sattharam, Bv. xxii. 14 ; an instr. satthâya, Dh. 87 ; the gen. satthussa, Mah. 240.

## Pitâ $=$ pitri, 'a father.'

Singular.
Nom. pitâ.
Voc. pita, pitâ.
Acc. pitaram, pitum.
Instr. pitarâ, pitunâ, petyâ.
D. G. pitu, pituno, pitussa.

Abl. pitarâ.

Loc. pitari.

Plural.
pitaro.
pitaro.
pitaro, pitare.
pitarebhi, pitarehi, pitûbli, pitûhi.
pitarânam, pitânam, pitûnam, pitunnam.
pitarebhi, pitarehi, pitûbhi, pitûhi.
pitaresu, pitûsu.

Mâtâ= mâtri, ' a mother.'

## Singular.

Nom. mâtâ.
Voc. mâta, mâtâ.
Acc. mâtaram.
Instr. \} mâtarâ, mâtuyâ, mâtyâ. \{mâtarebhi, mâtarehi, mâtûAbl. \} mâtarâ, mâtuyâ, mâtyâ.
D. G. mâtu, mâtuyâ, mâtyâ.

## Plural.

 mâtaro. mâtaro. mâtaro, mâtare. bhi, mâtûhi. mâtarânam, mâtânam, mâtû- naṃ, mâtunnam.Loc. mâtari, mâtuyam, mâtyam, mâtaresu, mâtûsu. mâtuyâ, mâtyâ.

The acc. sing. pitum occurs Cariy. ii. 9,3 ; the instr. mâty $\hat{\alpha}$ and petyâ, Jât. 527, จ. 3, 5; the gen. mâtussa, given by Kacc. 98 , is not found anywhere else, and belongs most probably to a bâhuvrîhî (Torp. 33). An abl. pitito and mátito, 'on father's and on mother's side,' occurs Kacc. 102, and in a passage from a commentary quoted by Alwis, Introd. xlv.

The nom. pl. mâtûrapitaro, where both stems are inflected, occurs Ang. p. 121; the gen. mâtâpitunnam, Ten Jât. 92. An acc. pl. bhâte occurs Dîp. 6, 21, 22.

The declension of dhîtâ, 'daughter,' is on the whole the same as that of mâtâ; we find, however, a voc. dhîte, Dh. 364, Jât. iii. 21 ; and an acc. pl. dhîtâ, Jât. i. 240. In composition we have dhîtiṭtlîna, Mah. 222 ; dhîtuhetu, Mil. 117.

Sakhi, 'a friend.'

Singular.
Nom. sakhâ.
Voc. sakha, sakhâ, sakhi, sakhî, sakhe.

Acc. sakhânam, sakham, sakhâ- sakhî, sakhâyo, sakhâno, ram. sakhino.
$\left.\begin{array}{l}\text { Instr. } \\ \text { Abl. }\end{array}\right\}$ sakhinâ.
D. G. sakhino, sakhissa. Loc. sakhe.
$\left\{\begin{array}{c}\text { sakhârebhi, snkhârehi, sakhe- } \\ \text { bhi, salhhehi }\end{array}\right.$ bhi, salihehi.
sakhârânam, sakhînam.
sakhâresu, sakhesu.

The acc. sakham occurs Jât. ii. 348 ; an abl. sakhârasmâ is found Jât. iii. 534 ; sakhrto, Att. 216 . Acc. pl. sakhi, Att. 203.

## (5). Stems in 8 .

Manas, 'the mind.' Singular.
N. V. A. mano, manam.

Instr. manasâ, manena.
D. G. manaso, manassa.

Abl. manasâ, manasmâ, manamhâ.
Loc. manasi, mane, manasmim, manamhi.

The plural of manas not in use. The others form it after the $a$-declension. The nom. acc. manam occurs Dh. v. 96, Cariy. i. 8, 5 ; rajam, 'dust,' Dh. $v ~ 313$, but rajo (with the adj. in the masc.), Dh. v. 125 ; sumedham, Dh. v. 208, but sumedhaso, Dh. v. 29 ; voc. dummedha, Dh. v. 394; a gen. tapassa occurs Jât. i. 293 ; nom. pl. sumanâ, Kh. 6.

Candramas, 'the moon,' becomes candimâ; jaras, 'old age,' jará ; and apsaras, 'a celestial nymph,' accharâ; all these follow the $\hat{a}$-declension.

The comparatives in yo, iyyo, follow the declension of mano; seyyo $=$ çreyas, 'better ;' gariyo = garîyas, from guru, 'heavy.'

> Ayus, 'life.'

Singular.
N. V. A. âyu, âyum.

Instr. âyusâ, âyunâ.
D. G. âyussa, âyuno.

Loc. âyusi, âyuni.

Plural.
âyûni, âyû.
âyûblıi, âyûhi.
âyûnam.
âyûsu.

The instr. âyusá occurs Kh. 16 ; âyunâ, Dh. 288; the gen. âyussa, Mab. 220 ; âyuno, Dh. 128.

## § 15. Comparison of Adjectives.

Adjectives with vowel bases form their comparison in two ways:-
(1) By adding tara for the comparative and tama for the superlative.
(2) By adding iyo, yo for the comparative and it!ha for the superlative.

Thus, from pâpa, 'bad,' we can form pâpatara, pâpataina
and pâpiyo, pâpittha, Kacc. 196. The comparative of no. 1 may be combined with the superlative of no. 2 ; thus we obtain pâpitthatara, C. i. 6, 2. Besides, the comparative of no. 2 may be increased by the addition of the suffix $i k a$, which gives us pâpiyyasika in tassapappiyyasikâkamma, M. ix. 6, 2; and with contraction pâpissika.

Adjectives terminating in mant, vant and vin, drop these suffixes before the comparative and superlative suffixes, as for inst. gunavâ comp. guṇiyo, sup. guniṭtha ; medhâvî comp. medhiyo, sup. medhittha.

Some adjectives form their comp. and sup. from entirely different bases:

| antika, 'near.' | Comp. | nediyo. |  | , |
| :---: | :---: | :---: | :---: | :---: |
| bâlha, 'strong.' | " | sâdhiyo. |  | ttha |
| dha, 'old.' | " | jyyo. |  | Je!̣ha |
| $\left.\begin{array}{l} \text { appa, ' small.' } \\ \text { uuva, 'voung.' } \end{array}\right\}$ |  | niyo. |  | kanittha. |
| pasattha, 'excellent.' | " | seyyo. |  | sett |

§ 16. Pronominal Inflexion.
(1) Personal Pronouns of the First and Second Persons.

First Person.

Singular.
Nom. aham.
Acc. mam, mamam.
Instr. A bl. mayâ.
Dat. Gen. mama, mamam. mayhan, amham.
Loc. mayi.

Plural.
vayam, mayam, amhe.
asme, amhe, amhâkam.
amhebhi, amhehi.
amhâkam, amhạ̣.
amhesu

Second Person.

Singular.
Nom.
Acc.
tvam, tuvam.
tvam, tuvam.
tam, tavam.
Instr. Abl. tvayâ, tayâ.
Dat. Gen. tava, tavam.
tuyham, tumham.
Loc. tvayi, tayi.

Plural.
tumhe.
tumhe, tumhâkam.
tumhebhi, tumhehi.
tumhâkam, tumham.
tumhesu.

Besides, we have the enclitic forms: me, te for instr. dat. and gen. sing.; no, vo for acc. dat. and gen. pl.

The old form of the nom. pl. vayam occurs Dh .105 , the acc. pl. asme, Jât. iii. 359. The acc. pl. amhâkam and tumhâkam are borrowed from the gen. The nom. pl. amhe axd the gen. amham and tumham, amhậạ̣ and tumhânam, are only found in Kacc. 83, 84.

The enclitic forms no and vo may also be used for the nom., according to Kacc. 78.
(2) The Demonstrative Pronoun.
(a) Stem ta, 'this.'

Singular.
Masc. and Neuter.
Feminine.
Nom. so, sa, tạ̣ (tad). sâ.
Acc. tam, tam (tad). tam.
Instr. tena. tâya.
Dat. Gen. tassa. tassâ, tassâya, tissâ, tissâana, tâya.
Abl. tasmâ, tamhâ. tâya.
Loc. tasmị̣, tamhi. tassam, tâsam, tissam, tâyam.

Masc. and Neuter. Feminine
Nom Acc. te, tâni. Instr. Abl. tebhi, tehi.
Dat. Gen. tesaṃ, tesânam.
Loc. tesu.
tâ, tâyo.
tâbhi, tâhi.
tâsam, tâsânam. tîsu.

For all the forms beginning with $t$ we may substitute the corre ponding forms of the stem na. At Kacc. 89, the following forms are given: nâya, naṃ, ne, nesu, namhi, nâhi. Besides we have the stems eta and ena, which are inflected like $t a$ and $n a$ respectively.

In the nom. sing. we generally have so, the form of the substantives, sa occurs Dh. v. 142, 267, 268. A gen. sing. masc. tasmassa is found Anecd. 15, and at Mil. 136 all MSS. give tâsam for the loc. sing. fem., which is no doubt a correct form, comp. nesaṇ, ib. 179.
(b) Stem ima, 'this.'

Singular.

Masc. and Neuter.
Feminine.

Nom. ayam, idam, imam. ayam.
Acc. imam, idam, imam. imam.
Instr. iminâ, anena.
D. G. innassa, assa.
imâya.
imissâ, imissấya, imáya, assâ, assáya
Abl. imasmâ, imamhâ, asmâ. imâya.
Loc. imasmị̣, imamhi, asmim. imissaṃ, imâsam, imáyạ̣, assam.

Plural.
Masc. and Neuter.
Feminine.
N. A. ime, imâni.

In. Ab. imelhi, imehi, ebhi, ehi.

1. G. imesạ̣, imesânaṃ, esam, esînam.
Loc. imesu.
$i m a ̂, ~ i m a ̂ y o . ~$
imâbhi, imâhi.
imâsaṃ, imâsânam.
imâsu.

In tadaminâ for tadiminâ, Vasala Sutta, v. 22, $i$ is changed to $a$ by dissimilation.

> (c) Stem amu, 'that.'

Singular.
Masc. and Neuter.
Feminine.
Nom. asu, adum. asu.
Acc. amum, adum. amum.
Instr. amunâ. amuyâ.
Dat. Gen. amussa.
Abl. amusmâ, amumhâ.
amussâ, amuyâ.
amuyâ.
Loc. amusmim, amumhi. amussam, amuyam.

## Plural.

Masc. and Fem.
Nom. Acc. amû, amuyo.
Instr. Abl. amûbhi, amûhi.
Dat. Gen. amûsam, amûsânam.
Loc. amúsu.
(3) Relative Pronoun.

Stem $y a$, ' which.'
Singular.
Masc. and Neuter.
Nom.
yo, yanı (yad).
Feminine.

Acc. yam, yam (yad).
Instr. yena.
Dat. Gen. yassa.
Abl. yamhâ.
Loc. yasmim, yamhi.
Plural.
Masc. and Neuter.
Nom. ye, yâni.
Acc. ye, yâni.
Instr. yebhi, yehi.

Dat. Gen. yesam.
Abl. yebhi, yehi.
Loc. yesu.
yâsam.
yâbhi, yâhi.
yâsu.

Feminine.
yâ, yâyo.
yâ, yâyo.
yâbhi, yâhi.
yâ. yam.
yâya.
yassâ, yâya.
yâya.
yassam, yâyam.
(4) Interrogative Pronouns.

Stem $k a$, 'which.'
The inflexion of this stem is like that of $y a$ with the following exceptions: The nom. sing. neut. is kim ; in the dat. and gen. masc. and neut. sing. we have kassa and kissa, in the loc. kasmim, kamhi, kismim and kimhi.

The indefinite pronouns are formed by adding the particles $c i, a p i$ and cana to the forms of the interrogative.

Besides, we have a number of words which although not being pronouns in the true sense of the word, still follow the pronominal inflexion: First of all, possessives like madîya, mâmaka, 'mine,' amhadîya, 'our,' would belong to this class, but of these we only find nominatives in our texts. Next come the adjectives composed with driç, as mâdisa, 'like me;' etâdisa or etârisa, and $\imath$ îdisa, ' like this;' kîdisa, ' like what;' cirassam for cirassa, 'long since,' seems to be a pronominal form.

By adding the suffixes tara, tama (already found in comparison of adjectives) to the interrogative stems, we obtain the pronominal adjectives katara and katama, which do not differ in their signification much from the single pronoun.

The other adjectives inflected according to the pronominal inflexion, are sabba and vissa $=$ sarva and viçva, ' all;' añña $=$ anya, ' other,' with its derivatives aññatara, añ̃atama; itara, 'other;' uttara, uttama, 'higher;' adhara, 'inferior;' apara, para, ' other;' dakkhina, 'right ;' pubba, 'former;' amuka and asuka, 'this.' The numeral for one, eka, also follow the same declension.

The grammarian Moggallâna (Alwis Catal., 184), asserts that these adjectives can also follow the regular declension of the $a$ stems, and gives some passages from unknown texts.

## § 17. Numerals.

(1) Cardinals.

| 1 | eka. | 5 | pañca. |
| :--- | :--- | :--- | :--- |
| 2 | dvi. | 6 | cha. |
| 3 | ti. | 7 | satta. |
| 4 | catu. | 8 | attha. |

9 nava.
10 dasa.
11 ekâdasa, ekârasa.
12 deâdasa, bârasa.
13 terasa.
14 catuddasa, coddasa, culdasa.
15 paĩcadasa.
í6 solasa.
17 sattadasa, sattakasa.
18 at!thâdusa, at!lhîrasa. 1000 suhussaṃ.

The forms visam, timsam, etc., show that the termination $t i$ of the Saṇskrit, can be replaced in Palli by the anusvâra. We find the anusvâra occasionally also where it has no right to be, as in dêadasam, Mah. 8 ; saṭtlim = shashṭi, Dh. 211. When the nasal is dropped the remaining $a$ may be lengthened.

The intermediate numerals between vîsan and timsam, etc., are regular, with the only exception that instead of $d v i$ we generally find $d v \hat{a}, b \hat{a}$ (or $d v a, b a$ before a double consonant), as in dvâvîsati, bâvîsati, dvattimsa, battimsa, dvenavuti, and instead of ti, te as in tevîsati. For caturaçiti we have cullâsîti, for pañcaviṃ̧̧ati paṇ̣uvîsam, Jât. iii. 138.

From cha we have a plural chaḷâni, Dîp. 108, and for twelve dviccha = dvishash, Ab. 195.

About the declension of ela, see the Pronouns.
Dvi and the synonymous ubho have the following inflexion :
N. A. dve, duve.
I. A. dvîbhi, dvîhi.
D. G. dvinnam, duvinnam.

Loc. dvîsu.
ubho, ubhe.
ubhobhi, ubhohi, ubhebhi, ubhehi. ubhinnam.
ubhosu. ubhesu.

Ubho $=$ Skt. ubhau is one of the few rests of the Dual remaining in Pâli (see above, p. 65).

In the numerals $t i$ and catu we have separate forms for the fem., very much in the same way as in Skt. :

Masc. and Neuter.
Nom. Acc. tayn, tîni. cattâro, caturo, cattâri. Instr. Abl. tîbhi, tîhi. catubbhi, catûbhi, catûhi.
Dat. Gen. tinnam, tịṇannam.
Loc. tîsu.
catunnam.
catûsu.
Feminine.
Nom. Acc. tisso.
Instr. Abl. tîbhi, tîhi.
Dat. Gen. tissannam.
Loc. tîsu. catûsu.
Pañca forms the instr. abl. pañcahi, Gen. Dat. pancannam, Loc. pañcasu, and this is the declension all numerals in $a$ follow.

The numerals in $i$ are declined like the fem. $i$-stems, satam and sahassam like neuters in am.

Satam and sahassam, in conjunction with a noun, can be joined to nouns in the following ways:
(1) With a noun in the gen. pl., as itthînam pañca satâni, five hundred women.'
(2) With a noun in the nom. pl. (satam being ither in the sing. or in the pl.), as pañcasatam. yatî, ' 500 yatis,' or pañcasatâ bhikkhû, ' 500 mendicants.'
(3) With a noun in the sing., as chacattâlîsam vassam. atikamma, 'after the lapse of 146 years.'
(4) As a compound, the numeral being the last part, as gâthâsatam, ' 100 stanzas.'
(5) As a compound, the numeral being the first part, as suhassajatilâa, 'a thousand jaṭilas.'

Another form of sahassa is sahassi, which is used promiscuously as a masc. and fem. in connection with cakkavîla or vasudhâ, \&c., as dasasahassî-cakkavâle, 'in ten thousand worlds,' Dh. 94. Sometimes the subst. is omitted, and dasasahassî is treated like a fem. noun, as dasasahassî pakampati, 'ten thousand worlds quake,' comp. Senart, Mahâvastu 373.

## The Ordinals.

The Ordinals for five, and from seven upwards, are formed by adding the suffix ma to the cardinal, as pañcama, 'the fifth,' sattama, 'tise seventh;' the fem. terminates in $\hat{\imath}$, the neuter in $a m$, and they are declined like the corresponding substantives.

The Ordinal forms of the first numerals are: one, pathama; two, dutiya; three, tatiya; four, catuttha; six, chattha; sattha (only known from Kacc. 200) and chatṭhama, Jât. i. 22, Bv. ii. 142.

From twenty upwards we have two forms, one by adding ma to the cardinal in ti, as vîsatima, 'the twentieth;' and one by dropping the termination $t i$, as vîsa, timsa, \&c.

From satam, sahassam, we bave the ordinals satama, sakassama.

Besides, we have fem. ordinals in $\hat{\imath}$ to designate the day of the month; as pañcamî, 'the fifth day ;' ekâdasî, 'the eleventh day,' \&c.

## § 18. Conjugation.

The division of the Pâli Verb, as established by the native grammarians, is on the whole the same as that of the Skt. They admit of seven classes, of which the first again is divided into four conjugations; these correspond to the classes i., vi., ii., iii. of the Samskrit grammarians, and the other six classes to the remaining Samskrit classes in the following order, vii., iv., v., ix., viii., x. Thus we obtain the following divisions of the Pâli Verb:-

First class:-(a) Verbs terminating in $\check{\breve{z}} \check{\breve{u}}$ or a consonant, which take guna and the vowel $a: \sqrt{ }$ bhû, bhavâmi, 'to be.'
(b) Verbs ending in consonants which take the vowel $a$, but no guṇa: $\sqrt{ }$ tud, tulâmi, 'to pierce.'
(c) Verbs euding in vowels which take guna, but add the personal endings without an intervening vowel: $\sqrt{ } i$, emi 'to go.'
(d) Verbs forming their bases by reduplication: $\sqrt{ }$ hu juhomi, 'to sacrifice.'

The third division (c) is given in the Dhâtumañjûsâ as huvâdayo, whare $h \hat{u}$ is another form of the root $b h \hat{u}$, 'to be,' forming its present homi.

Second class:-Verbs taking the $a$-vowel and inserting a nasal before the final consonant of the root: $\sqrt{ }$ rudh, rundhâmi, 'to restrain.'

Third class:-Verbs adding the suffix $y a, y \hat{a}$ to the root: $\sqrt{ }$ div, dibbâmi, 'to play.'

Fourth class:-Verbs adding the suffixes $n \hat{a}$, $n u$ (which becomes noo by guṇa) or uṇ̂ to the root: $\sqrt{ }$ çru, sunâmi or sunomı, 'to hear;' $\sqrt{ }$ âp, pâpunâàmi, 'to attaiu.'

Fifth class:-Verbs ending in a vowel, which add the suffix $n a \hat{a}$ to the root: $\sqrt{ }$ krî, kinâmi, 'to buy.'

Sixth class:-Verbs ending in a consonant, which add $u$ (or o by guna) to the root: $\sqrt{ }$ tan, tanomi, 'to stretch.'

Seventh class:-Verbs adding the suffix aya (or $e$ by contraction) to the root: $\sqrt{\text { cur, corayâmi or coremi, 'to steal.' }}$

Verbs have two voices, the Parassapada or Transitive, and the Attanopada or Intransitive; the use of the latter is much more restricted than in Samskṛit, most of the Attanopada verbs having adopted the Parassapada terminations.

We distinguish in Pâli, as in Saṃskrit, special and general tenses. It must, however, be observed that the special and general bases very often take the place of one another. as will be shown hereafter.

Special tenses :-
(1) Present Indicative, Subjunctive, Optative and Imperative.
(2) Imperfect.

General tenses:-
(1) Perfect.
(2) Aorist.
(3) Future.
(4) Conditional.

Terminations of the Present Indicative.

Parassapada.
Sing. Pl.

| $m i$ | $m a$ |
| :--- | :--- |
| $s i$ | $t h a$ |
| $t i$ | $n t i$ |

Attanopada.
Sing.
Pl.
$\begin{array}{ll}e & m h e(m a h e, m h a) \\ \text { se } & \text { vhe } \\ \text { te } & \text { nte, re }\end{array}$

These terminations are very similar to the corresponding ones in Samskrit. In the first pers. pl. of the Attan. we some-
times find the fuller form in mahe, as bhasmîbhavâmahe, Mah. 6; the termination mha shortened from mhe occurs in dadamha, Dh. 188, mañamka, Db. 205 (the long $\hat{a}$ is crasis for the $i$ of the following iti, see above, p. 60). Instrad of ante in the third pers. pl. we frequently meet with the termination are, especially in old texts, metrical as well as prosaïcal, as miyyare $=$ mriyante, 'they die,' Das. Jât. 34 ; udiccare from udîksh, 'they looked,' M. I. 15, 6; abhikîrare, 'they overwhelm,' Jât. iii. 57. This are is most probably the vedic termination re of the third pers. pl. âtmanep. as in çriṇvire; it also exists in Prâk. Hem. iii. 142.

We have to consider first the verbs that add the terminations immediately to the root (which form the second class in Samskrit, in Pâli division (c) of the first class). The paradigm adopted by the native grammarians is $h \hat{u}=\mathrm{bh} \hat{\mathrm{u}}$, 'to be.' It forms its present as follows:-

| homi | homa |
| :--- | :--- |
| hosi | hotha |
| hoti | honti |

Other roots belonging to this class are those terminating in $\hat{a}$, like $y \hat{a}$, 'to go,' vâ, 'to blow,' which have entirely the same inflexion as in Skt., only that they shorten the $\hat{\alpha}$ in the third pers. pl., yanti=Skt. yânti. Besides, the root yâ may follow the third class, as in yâyanti, M. v. 9, 4. TThâ=sthâ, 'to stand,' forms its present ṭhâti and tiṭthati, e.g., thâta, Dh, 1こ3, samthâti, Dh. 429 ; from $\mathfrak{u} a ̂$ we have a present, dâti, Kace. 264, imper. first pers. pl. nipadâmase, Jât. iii. 120 (explained by the commentary nikârapakârâ upasaggî dâmase ti attho). Paj$j h a ̂ t i$, Jât. iii. $53 \pm$, is most probably derived from $j h i \hat{a}=$ kshà, 'to decay,' comp. pajjhayi, pajjhâyasi, Suttavibh. i. 19. ii. 5.

From dhyâ we have pajjhâyanto, 'groaning,' Mil. 5 , if Trenckner's translation is correot, and according to Senart, Mahâvastu 377, also the present âvajjati and âvajjeti, 'to consider,' which would have dropped the aspiration. From snâ, 'to bathe,' we have an imper. nahâhi belonging to this class, Jât. ii. 325. From ṭhatti and dhâti = dadhâti we come to the forms thahati and dahati which are in very frequent use in Pâli.

Of verbs terminating in $i$ we have to mention here besides $i$ and $\varsigma \hat{\imath}$, which belong to this class also in Skt., nî, 'to lead,' çri, 'to lean,' ji, 'to conquer,' ḍî and lî, ' to fly.' $I$ seems to form its present very much as in Skt., for the first and second pers. pl. of course we get ema, etha, instead of imas, ita; for the third pl. Cbilders adduces a form samudayanti from Brahmajâlas. Atth. which is formed from samudenti by false analogy. In the present vyapanenti quoted by Minayeff, p. xxxii. from Udânagâthâ and in vassûpanâyika, M. iii. 2, 2, we have derivations from $i$ with the prepositions apan and upan respectively, which make them look as though they were derived from $n \hat{\imath}$, comp. Vinaya Texts, i. xxxvii. A present ayati belonging to the bhûclass is given in Dhm., but has not yet been found in any text.

Çì forms its present semi, Cariy. ii. 2, 3, third pl. senti, Dh. 28 ; in the part. we have semâna, Jât. i. 180, Mah. 49; sayamâna, Att. 218.

Nî forms neti and nayati according to Kacc. 261 ; part. upanento, Dh. 154; gerund apanetvâ instead of ${ }^{\circ}$ nîtvâ by false analogy.

Çri forms a present apasseti, C. vi. 20, 2, comp. apassena for apaçrayana.

Ji has the present jayati, jeti and jinâti, Kacc. 261 ; opt. jeyya for jayeyya, Dh. v. 103.
 compounds of this root, oddeti and uddeti, the explanation of which causes considerable difficulty. Oddeti occurs in the signification, ' to place, to lay nets,' Jât. i. 274, ii. 443, 5, 52, $153,183,238$, Suttavibh. i. 22 (v. l. otṭi, Buddh. odḍĥ̂ ti abhimukham thapesi), uddeti, 'to cast a net,' Ang. i. 24, 4. Morris, in a note to this last passage, identifies the two forms, and he is no doubt right, but I believe uddeti to be the original one, and oddeti a later change. Instead of omâna, Jât. ii. 443, vs. 1, we ought to read demâna. A causative of the same root is uțtepeti, 'to frighten away,' M. i. 51, comp. uḍḍâpıta, Çatr. 10, 91, and perhaps niḍdayati, Jât. i. 215, niddâpeti, C. vii. 1, 2 ; but these two might also belong to dâ, dyati. In Prâk. we have uḍ̣̣ihiyam, Pâiyal. 182.

The root brû, which is generally given as paradigm of this class in Skt., shows the following conjugation in Pâli:-

Parassapada.

| brûmi | brûma |
| :--- | :--- |
| brûsi | brûtha |
| brûti, bravîti | bravanti |

Attanopada.

| brave | brûmhe |
| :--- | :--- |
| brüse | brûvhe |
| brûte | bravante |

The root han has hanti in the third pers. sing., but hanati, Mil. 220, hananti in the third pl., Dh. 64, for Skt. ghnanti.

Vac forms vatti and vacati, according to Saddanîti, but these forms have not yet been found in any text.

The root as, 'to be,' has the following inflexion:-
asmi, amhi
asi
atthi
asma, amha
attha
santi

At Jât. iii. 309 we have a curious first pers. pl., amhase, which looks like an imperf. attanop. but is used like a present.

The synonymous root acchati is now proved beyond doubt to belong to âs, from which it proceeds through the aorist acchi, see Trenckner, Pâli Misc. 61, Pischel, Gött. Anz. 1865, p. 627, Torp 88. We find the compound samacchati, in the original signification, 'to sit down,' Jât. ii. 67. The aorist acchi occurs Dh. 158, Suttavibh. i. 35.

The present pâheti, 'to send,' also belongs to this class, although it is given by the grammarians among the svâdayo and tanâdayo. The $\hat{a}$ in the first syllable shows that it is only deduced by false analogy from the aorist pâhesi= Skt. prâhaishît, but it is considered as a genuine present in Pâli:

As a paradigm of division (d) of the first class, I give here the conjugation of the root $h u$, 'to sacrifice.'

$$
\begin{array}{ll}
\text { juhomi. } & \text { juhoma. } \\
\text { juhosi. } & \text { juhotha. } \\
\text { juhoti, juvhati. } & \text { juhonti, juvhanti. }
\end{array}
$$

Besides, there seems to be a new root, juh taken from the special base, and inflected with the vowel $a$, as in juhamâna, Jàt. ii. 399 ; and from this is also derived the subst. juhana, 'sacritice,' Jât. i. 493, wrongly spelt jûhana, Gr. 16.

Other roots belonging to this class are those ending in $\hat{a}$, some of which I have already mentioned; $h \hat{a}$ forms the present juhâti, but we find also vijahati, Dh. 99, 261, from a new root, jah.

Dâ and dhâ can also have the regular forms dadâti and dadhâti, besides the new ones mentioned above, and from $d a d d m i$ is also derived the contracted form dammi $=$ dadmi, pl. dumna, Dh. 123, 129 ; Jât. i. 127, etc. Besides we have a present demi, which shows exactly the same inflexion as emi, ' I go ;' Childers derives it either from the Skt. dayate, or by
false analogy from the imper. dehi detu, but I confess that none of these explanations seems to me quite satisfactory.

From dhâ we have-nidheti, Kh. 12 ; nidhetum, Khuddasikkhâ, xxxi. 2 ; and besides a distracted form daheti (analogous to dahati from dhâti) in the aorist pidahesi, Mab. 4, and the future paridahessati, Dh. v. 9. Pass. antaradhâyati.

From sthâ we have the imp. utthehi, Rev. v. 3 ; Dîp. 60; nitthâyati, C. v. 26, generally nitṭhâti. From hnu, Kacc. 135 gives the present hanute, but the Dhm. omits this root altogether.

The division ( $a$ ) of the first class has considerably encroached on most of the other classes. Nearly all the roots terminating in $u$ or a consonant, and belonging to the second class of the Skt. have migrated into this class in Pâli: lih forms lehati, Jât. i. 19 ; lehentâ, Jât. ii. 31 ; Suttavibh, i. 46 ; duh : dohati, Kacc. 144; but duhanti, ib. 141; rud: rodati and rudati, Jât. iii. 214 ; rodâmi, Das. Jât. 33. Vetti, from vid, ' to know,' is entirely lost in Pâli, and generally replaced by jânâti. We find, however, a present vindati formed according to the 6th class of the Skt., and vijjati = vidyate ; besides vedeti and vediyati, Mil. 60; Suttavibh. ii. 167 ; Part. vedayitu, Mil. 60. From jâgar, 'to watch,' we have the present jâgarati, Dh. 8, 11, 41, and jaggati, Dh. 201 ; Jât. iii. 403 ; comp. the Prâk. forms jâgaraï and jaggaï, Hem. iv. 80 ; from daridrâ, 'to be poor,' the Dhm. gives daliddati; but this form has not yet been found in any text. In some cases the $e$ is only due to false analogy, as in the fut. gahessati, and aorist aggahesi, from grih, see Childer's 'Corrigenda,' s. v.

Daç, 'to bide,' forms dasanto, dasitvâ and damsento, damsetvâ, ḍasâpetvâ, ḍamsâpetvâ, Ten. Jât. 42, 43, 44, 54.

Dhmâ, 'to blow,' forms dhamati and dhameti; besides we
have a reduplicated form dhamâdhamayati, Mil. 117; niddhamana, ' a water-course,' is also derived from this root.

The root $v \hat{\imath}$ or $v e$, 'to weave,' is given in the Dhm. among those that follow the first conjugation, and indeed we find an infinitive vetum, C. vi. 2, 6 ; a present abbeti occurs, Jât. iii. 34, where Fausböll has altered it into appeti, comp. Trenckner, P. M. 64. A new present vinâti, formed according to the fifth class, occurs Jât. ii. 302 ; and besides we have the regular passive vîyati or viyyati, Pât. 11.

Vad, 'to speak,' supplying the lost special tenses of vac forms its present vadati and vadeti. The Dhm. only gives a ront vad with the signification 'to praise' following corayâmi. Besides, vajj may be substituted throughout all the tenses, according to Kacc. 254 (derived, no doubt, from the opt. vajju, Jât. ii. 322), e.g. vajjâsi, Jât. iii. 443, comp. vivâdyanti, Mahâ vastu, p. 378.

Tas $=$ tras, 'to tremble,' forms its present regularly tasati, Dh. 24; we find, however, an aorist vitthâsi, Kamm. 4, a present vitthâyati, M.i. 76, 3 ; C. x. 17, 3, and a participle vitthata Mil. 36 ; for vitthata comp. Prâk. hittha, Hem. ii. 136, P. Goldschmidt's remarks 'Setubandha,' ii. 42 ; vitthâsi reminds one of a form trâhi, Lalitavistara, p. 286, which I have corrected into trâsi (Der Dialekt der Gâthâs des Lal. p. 284), and vitthâyanti seems to be formed after the false analogy of this aorist in the same way as pâheti from pâhesi.

Tud forms vitûdati with lengthening nittûdana, Mahâparin. ड.4, besides vitudam (?) Dh. 146 ; from Khan, 'to dig,' we have an irregular inf. nikhâtum, Cariy. iii. 6, 16.

Ruh forms abhirohati, abhirûhati with lengthening, and even abhiruhati.
$B h \hat{\imath}$, 'to fear,' forms bhâyati, comp. Hem. iv. 53. The redu-
plicated form bibheti is entirely lost in Pâli. The Imper. bhâtha, Jât. i. 26, is contracted from bhâyatha.
Svap, 'to sleep,' forms supati ; Part. sumanta, Mil. 368.
Tyath, 'to tremble,' is also given under this class in Dhm., but I have only found it under the form vedhati. At C. vii. 4, 6, Oldenberg has suggested to read vyathati for the senseless vyîdhati. The causative is vedheti, Trenckner, P. M. 76.

The second class of the Pâli, corresponding originally to the seventh of the Skt., forms its present after the fashion of those verbs of the sixth class which adopt $n$ : so we obtain from rudh a present rundhâmi, just as we bave from vid, vindâmi. Kacc. 238 gives besides the forms rundhiti, rundhîti, rundheti, of which the last occurs also in the imper. rundhehi, Cariy. iii. 10, 7 (where, however, the corresponding passage of the Jât. i. 332, reads randhehi). About the passive rumh, see above, p. 39.

The other roots belonging to this class, as muc, 'to release,' chid, ' to cut,' lip, 'to smear,' bhuj, ' to eat,' are regular.

The third class comprises the verbs that take the suffix ya (with assimilation of $y$ to the consonant terminating the root). Some of the verbs belonging to this class are real passives, as viijjati, 'to be found, to exist,' pass. of vidati ; udriyati, 'to go to ruin,' from dar, dṛịâti, M. iii. 8, 1; Suttavibh. ii. 254. Others have adopted the meaning of actives, as bujjhati from budh, 'to know, to understand,' sibbati from sîv, 'to sew,' dajjati is most probably not the Skt. dadyate only given by grammarians, but a derivation from the opt. dajjâ, just as vajjati from vajja (see above, p. 102).

Mar forms the present marati and miyati or miyyati. At Saddhammop. vs. 139, we find mariyati, which certainly is not classical.

Jar, 'to decay,' forms jîyati or jiyyati and jîrati; besides we have $j \hat{u} r a s i$ in a passage quoted by Childers, J. R. A. S. xi. 110, from an unknown author. Comp. Pràk. jûraï, Hem. iv. 132.

Çar, 'to throw down,' forms seyyasi = çîryasi, Jât. i. 174. Part. visiṇna $=$ viçîrṇa.
$L \hat{u}$, 'to reap,' forms lâyati, Das. 31, Jât. i. 215 ; lâyeti, Suttavibh. i. 64 ; lâveti, with change of $y$ to $v$, Kacc. 262; lâpayati, Mah. 61, and the regular lunâti, Kacc. 238.

Gâ, 'to sing,' forms gâyati, Dh. 85 ; imper. gâhı, Jât. iii. 507.
The fourth class corresponds to the fifth of the Skt.; but. most of the verbs belonging to it can also form their present according to the ninth, by adding the suffix nâ to the root. From çru, 'to hear,' we have the present suṇoti and sunâti, imper. suṇohi and sunâhi, inf. sunitum, Mil. 91. From ci, 'to collect,' we have cinâti, Dh. 209 ; vinicchinati, Db. 377 ; ocinâyatu, Cariy. iii. 6, 7 ; samcinoti, Att. 200 ; part. saṃcayanto, according to the first class, Mah. 127. Roots ending in a consonant can assimilate the $n$ to this consonant, or insert $u$ before the Suff. $n u$ or nâ, e.g. pappoti, pâpunoti and pâpunâti, from $\sqrt{ }$ âp, 'to attain,' sakkoti and sakkunâti (where the second $k$ is due to the false analogy of sakkoti), from $\sqrt{ }$ çak, 'to be able;' sakkâti occurs Saddhammop. v. 385, and a shortened form sakkati is induced by Childers from Nâvâ S. and Saddanîti.

Gar, 'to sound,' forms anuginâti = anugrị̣âti, 'he answers,' Kacc. 139. Besides we have uggirati, 'to rattle,' Jât. i. 150 ; Pât. 18.

Abhisambhunoti, 'to obtain,' Lotus, 313, Pât. vii., is referred by Childers to the root bhṛî of the Dhâtupâṭha, and this explanation is adopted with some hesitation by Senart Mabâvastu 406. The Dhm. gives an especial root sambhu.

Sumbhoti, Kacc. 238, is perhaps identical with Skt. çubh, çubhnâti, 'to kill,' comp. Mahâvastu, 381. The Dhm. gives a root sumbh, 'to beat,' following the first class, and Jât. iii. 185, we have sumhâmi, v. l. sumbhâmi explained by paharâmi.

From var, 'to cover,' we have several forms according to this class ; Trenckner, P. M. 63, gives the following : vanimhase, Jât. ii. 137 ; apâpuṇanti, It. 84, v. 2 ; vanomi, Jât. 513, v. 14 ; âvunitvâ, 'having pierced,' Cariy. iii. 12, 2 ; samvunoti and samvunâti, Kacc. 238. But it can also follow the first class as vivarati (vivunâti seems not to exist), saṃvarati, Mil. 152 ; pâpurati and pârupati, 'to dress;' avapurati, F. J. 29 ; avâpuriyati, Jât. i. 63 (comp. avâpurana, 'a key,' Ab. 222).

The fifth class corresponds to the ninth of the Skt., but includes also some verbs belonging originally to other classes. The Pâli grammarians reckon among this class several verbs which originally belong to the fifth class of the Skt., like cinâti, 'to collect,' dhunâti, 'to shake,' Skt. cinoti, dhunoti. About jinâti see above, p. 98. From pû, 'to purify,' we have opunâti, Dh. v. 252 ; Jât. i. 467 ; Mahâparin. 49. From kinâti, 'to buy,' we have an irregular inf. ketum, Jât. iii. 282.

Mush, 'to steal,' forms its present musati, Ras. 32 ; pamussati derives most probably not from mush but from smrish, see above, p. 58.
$A_{\xi}$, 'to eat,' forms asnâti, Mettânisamssâ, vs. 8; imper. asnâtha, Mabâparin. 59.

Mâ, 'to measure,' forms minâti, caus. minâpeti, Jât. ii. 378; ninimhase, Jât. ii. 369, Dh. 417.

Badh forms bandhati instead of badhnâti with a metathesis similar to that of rundhati $=$ runaddhi ; lag, 'to stick,' forms laggati $=$ lagnâti, besides lagati after the first. From math, 'to grind,' we have abhimatthati $=$ abhimathnâti.

Jŭâ forms jânâti regularly; from gṛih we have ganhâti and ganhati, Dh. 160.

Other verbs following this class are mun = man, 'to think,' in munâti, comp. Hem. iv. 7 ; Fausb. S. N. 169 ; and thun $=$ stan, 'to thunder' in thunanti (meaning 'to proclaim,' which points really to a confusion of the roots stan and stu, as one would think from Dhm.), Rev. 3 ; anutthunâti, Dh. 28, 323. From the same root we have thanayam, Mabâsamayas. vs. 23 ; thanita, Att. 210; Jât. i. 64; nitthananta. Jât. ii. 362 ; nitthanamâna, Jât. i. 463.

The sixth class corresponds to the eighth of the Skt. In Pâli, however, in this case the root kar, 'to do,' can form its present quite regularly in the following way:

| karomi. | karoma. |
| :--- | :--- |
| karosi. | karotha. |
| karoti. | karonti. |

Besides, we have a form kummi for the first pers. sing., Jât. ii. 435 , to which we may compare kurumi, Lalitavistara, 270. In the attanopada we have kurute, Dh. 9, 39, Mah. 219; and, besidès, kubbate, kubbati, Kacc. 261 ; vikubbati, Jât. iii. 114 ; tan has tanomi regularly.

The Dhm. reckons several more roots to this class, of which some have been dealt with before, and others do not occur in any text, so that we need not mention them here.

The seventh class comprises the denominative verbs, the causatives, and a few primitive verbs, which have migrated into it from other classes. The inflexion of these is the same as of the verbs terminating in $i$ or $\hat{\imath}$ which belong to the first class, as ji , çî, nî, etc.; aya can always be contracted into $e$, and also ayi of the past and future undergoes very often the
same change. Even verbs in âyati can be contracted, as paleti for palâyati, Dh. v. 49.

Among this class I also reckon verbs like âgilâyati, ' to be weary, to pain,' C. vii. 4 , 2, which is given by the Dhm. as belonging to the third. A doubtful word is samkâyati, C. x. 18, with the v. 1. sahâyati.

Primitive verbs that occasionally take the suffix of this class are vac in vacehi, Dh. 159, vad in vademi, vadehi, Ras. 21, dajj in dajjehi, M. vi. 23, 3; Suttavibh.i. 217, tud in vitudeti, Suttavibh i. 105. About vediyuti and vedayita see above, p. 101.

Imperative.

Parassapada.

| $m i$ | $m a$ |
| :--- | :--- |
| $h i$ or ${ }^{\circ}$ | $t h a$ |
| $t u$ | $n t i$ |


| Attanopada. |  |
| :--- | :--- |
| $e$ | mase |
| ssu | vho |
| tam | ntam |

$M i$ is most probably transferred from the present by false analogy. In the second person the short form without suffix is not so frequent as in Skt. We find $h i$ also in such cases where we are not accustomed to see it in Skt., as in gaṇhâhi for gaṇha = gribṇa. From gacch we have gacchahi, Kacc. 248, besides gacchâhi. Paṭimâse, Dh. v. 379, is contracted from paṭimâsaya. The termination tha of the second pers. pl. is evidently taken from the present, e.g., etha, passatha, Dh. v. 171, brûtha, Jât. iii. 520. From aç, 'to eat,' we have asnâtha Mabâparin. 59.

The termination ssu of the second pers. sing. attanop., derived from Skt: sva, is very frequent even in verbs which follow the parassapada inflexion, e.g., bhavassu, Dh. v. 371, pilandhassu, Mil. 337, âsassu, 'relate,' Gr. 118 for âsasassu, comp. Kacc. 288 ; third pers. labhatam, Mahâpar. 62. The
termination mase of the first pers. pl. is either very old or very modern (comp. for the first eventuality Kuhn, p. 101, for the second, Torp, p. 47) ; besides we have one instance of a form terminating in maham, gacchâmaham, Dh. 86. For the curious form in vho of the second pers. pl. (we would expect vham= Skt. dhvaṃ) I can only adduce one example, nivattavho, Jât. ii. 358 .

The form of the root is the same in the imperative as in the indicative. Thus we have from çru, second pers. sing., sunohi, Att. 134; from kar, second pers. sing., karohi, Dh. 42; besides kuru, Mah. 18, 61, second pl. karotha, first pers: pl. attan. karomase, Jât. ii. 258. From dâ we have the Skt. form dehi, besides dadâhi, Jât. iii. 109; dajja and even dajjehi, M. vi. 23, 3.

From as a second pers. sing. $\hat{h} h i$ is given by Childers and Minayeff, but bas not yet been found in any text. The form is always expressed by bhava, bhavassu, or hohi, Dh. 187.

About the existence of the attanop. forms of kar and dâ given by Minayefi, § 178,179 , I feel very doubtful.

## Subjunctive.

The subjunctive in Pâli has been discovered by Pischel, K.Z. xxiii. 424, who adduces a few examples from Dh. and Jât. It d$f f e r s$ from the indicative only by the lengthening of the vowel $a$. Farther instances are patibhanâti, Jât. iii. 404, hanâsi, Jât. iii. 199, and perhaps da̛hâsi, dahâti, Fausb. S. N. 161, 169.

Optative.

Parassapada.

| eyyâmi, e, eyya | eyyâma, ema |
| :--- | :--- |
| eyyâsi, e, eyya | eyyâtha, etha |
| eyya, $e$ | ey.yı̣̆ |

Attanopada.

| eyyum eyyâmhe |  |
| :--- | :--- |
| etho | eyyavho |
| etha | eram |

This form of the optative originated from contraction of the optative suffix $\hat{y} y a$ with the $a$ of the first class, but it is in use with the other classes as well. When stems end in a vowel, this vowel is dropped before the $e$ of the termination, as, e.g., dadeyya, and even deyya, from dadâti.

Roots terminating in $\hat{a}$, and following division (c) of the first class form their optative by inserting $y$, as yâyeyya, from yâ, Pât. 110, nhâyeyya from nahâ = snâ, nibbâyeyya from nirvâ, 'to be extinguished;' from the last we have besides an abbreviated form parinibbaye, Das. 6.

The forms of the sing. in $e$ are frequent enough in older texts, as ânaye (first pers.), Jât. i. 308 ; labhe, Cariyâp. i. 1, 9 ; rode, Jât. iii. 165 ; nivase (first and second pers.), Jât. iii. 259, 262 ; pâpune (third pers.), C. vii. 4, 8; dade, Cariy. i. 3, 8. In Khuddasikkhâ we find even a third sing. de.

The termination eyya of the first pers. originated from eyyam after the nasal had been dropped ; it is a form of the parassap. identical with the Skt. eyam, as we can see from instances like deseyyam, Dhp. 119, puccheyyam, Pât. 1, etc.

The first sing in eyyâmi, as far as I know, is only given by grammarians as heyyâmi, bhaveyyâmi, huveyyâmi, from Rûpasiddhi, at Alwis Introd. 48, in the second we have $e$ and eyyâs $i$, as sikkheyyâsi, Jât. i. 162, âhareyyâsi, Dh. 248, once eyya in yájeyya, Jât. iii. 515 ; in the third $e$ and eyya. One instance of the fuller form eyyâti occurs : jâneyyâti, C. vii. 3,.4. In the first pers. pl. we have emasi, emu, and ema, as vidhamemasi, Jât. iii. 261, passemu, Jât. iii. 495, jânemu, .Kasîbhâradvâjas. vs. 1, Dh. 96, and dakkhema, Mahâsamayas. vs. 25; generally eyyâma.

In the second pl. we have only one instance of the shorter form samâsetha in the phrase sabblir eva samäsetha; besides
we have eyyâtha in âgameyyâtha, Cariy. i. 8, 5, saṃatteyyâtha, Dh. 129, pahineyyâtha, Dh. 215. In the third pl. we have always eyyum $=$ Skt. eyus.

The second sing. attanop. in etho, and the third in etha, are formed after the old fashion=Skt. ethâs, eta; the third is very frequent also in such verbs which otherwise follow the parassap. inflexion, as rakkhetha, Dh. v. 36, abhittharetha, v. 116, and in passives, as jâyetha, Dh. v. 58, from $\sqrt{ }$ jan. Besides, we have âgaccheyŷ̂tho, manasikareyyâtho given by Alwis, Cat. 184, from Moggallâna's grammar. The first and second pers. $\mu l$. do not occur in any text, but the third is frequent, as bhaveram, gaccheram, \&c.

Shortened forms of the regular opt. occur of some roots in $\hat{a}$, as sthâ and dhấ: adhiṭtheyya for adhitṭhâyeyya, Khudd. 1.6, apanidheyya, Pât. 16, and so we ought to read parinibbeyam instead of parinibbâyi, Dîp. i. 24. From roots ending in $i$ we have niccheyya, Dh. v. 256, for nicchayeyya, from nis + ci, anabhineyya, Pât. 4, vineyya, Khudd. 31, from nî; jeyya from ji, Dh. v. 103; from $i$ we have abbheyya, Pât. 6, second eyyâsi, Jât.iii. 535. From $h \hat{u}=\mathrm{bhû}: h u v e y y a$ and hupeyya according to the Burmese writing, M. i. 6, 9; Trenckner, Pâli Misc. 62 ; besides, we have a contracted form heyya, only known from Rûpasiddhi ap. Alwis Introd. 48, but not yet found in any text.

The optatives of the seventh class can be shortened in two different ways; from corayeyya we get coraye on qne side and coreyya on the other; from bhâvayâmi we have a contracted third sing. attanop. bhâvetha, Dh. v. 87 for bhâvayetha.

Besides this regular form of the optative, which corresponds to the optative of the Skt. first principal conjugation (comprising the first, fourth, sixth, and tenth classes), we have a few rests of the optative of the second principal conjugation.

Some of the roots ending in $\hat{a}$ can form, besides the regular optatives of the type dadeyya and deyya given above, the old dajjâ = Skt. dadyât, Dh. v. 224 ; first pers. dajjam, Mah. 63, dajjâham, M. iii. 8, 1, and dajjâmi, Mah. 8. From this optative dajjâ was formed the verbal base dajjati (see above, p. 103) and this can again take the terminations of the optative, as in dajjeyya, Kacc. 256, anuppadajjeyya, Pât. 11 ; first pl. anuppadajjeyyâma, Pât. 11.

From jñâ we have jâniyâ, corresponding to Skt. jânîyât with shortening of the $\hat{\imath}$, and contracted from this $j a n \vec{n} \hat{a}$; besides a form after the analogy of the verbs with vowel $a$, as $j \hat{a}$ neyya.

From as, 'to be,' we have an old optative which preserves throughout the $a$ of the root dropped in Skt. :-

| assam | assâma |
| :--- | :--- |
| assa | assatha |
| assa, siyâ | assu, siyuñ |

The first pers. assam occurs Dh. 186, the second assa, Jât. iii. 515 , in the third both forms are equally frequent; assâma is found in Saccavibhanga, assu, Dh. v. 74, Jât. ii. 425.

From vad, 'to speak,' we have a second sing. vajjâsi, Jât. ii. 443 ; third pl. vajju, Jât. ii. 322, explained by the regular forms vadeyyâsi and vadeyyum. By false analogy of this optative we have a present vajjâmi (just like dajjâmi, from dajjam), vajjemi and a secondary optative vajjeyya given by Kacc. vi. 4, 19.

Kar forms its opt. in the parassap. third pers. sing. Fare and kareyya, Dh. v. 43, Kacc. 263, pl. kareyyâtha, Dh. 147, kareyyum, Dh. 187 ; attanop. kubbetha, C. vii. 4, 8. Besides, we have an old opt. kayirâ or kayira from karyât instead of kuryât, attan. kayirâtha or kayiratha.

Äp forms the old opt. pappuyya = prâpnuvât, Das. 37, C. vi. 4,4 .

## Imperfect and Aorist.

First formation.

Parassapada.

| ama $a$ | amha | $\ldots$ | amhase |
| :--- | :--- | :--- | :--- |
| $a 0$ | atlha, $\hat{u}$ | ase | avham |
| $a a$ | um | attha | atthum |

Second formation.

Parassapada.

| $i m$ | imha |
| :--- | :--- |
| $i$ | ittha |
| $i$ | imsu, isum |

Attanopada.
... imhe
ise, ittho ivham ittha.

The first form belongs to the imperfect and simple or strong aorist, which cannot be distinguished in Pâli, the second to the weak aorist, which is formed by adding the root as, 'to be,' as in Greek.

A third formation is only distinguished from the second by the plus of an $s$, so that we have sim instead of $i m, \& c$. It is used mostly in verbs ending in vowels, and in causatives.

Examples of the first sing. in aṃ:-avacam, Dh. 212, addam. and addasam, 'I saw;' Jât. iii. 380, Anecd. 35, once with the present termination addusâmi, Oldenberg, K. Z. xxv. 320, addasa, M. ix. 1, 5, where the reading of the MSS. ought not to be changed; from dâ we have adam, Jât. iii. 411, Cariy. i. 9, 30 ; from bhû ahuṃ, Jât. iii. 411 ; from çru, assuṃ, Jât. iii. 542.

Second pers. in $o=$ as : pamâdo, Dh.v. 371 ; âsado, Jât. i. 414, iii. 207, C. vii. 3, 12; in $a$ : avaca, Pât. 99 ; and from a reduplicated aorist identical in its formation to the Skt. avocam : avoca, Dh. 155, coca, Dh. v. 133.

In the third pers. we have $\ddot{a}$ and $a=\mathrm{at}: a b h a v a \hat{a}, a h u v a ̂$, Buddha 443, addasa, udacchidâ, Anecd. 77, and with a curious doubling of the $d$, unexplained as yet, acchidda, Dh. v. 351 ; amarâ, Jât. iii. 389 (v. l. amarî), 'be died.' Ajjhagamâ, Ras. 78, papato, C. v. 20,5, is the only instance known of $o$ in the third.

In the first pers. pl. we have amha or mha in adamlea, Jât. ii. 71 ; assumha, Jât. ii. 400 ; vutthamha, Dîp. 79 ; ahumha, Dh. 105; besides a form corresponding to the Șkt. addasâma, Dh. 96.

Second pers.: ahuvattha, Dh. 105; avacuttha, Pât. 5 ; dattha, Jât. ii. 181.

In the third pers. we have $\hat{u}, u$ and $u m$, all representing the Skt. us. Examples in um are very numerous; $\hat{u}$ we have in ajjhagû from adhigacchati, Jât. i. 256, anvagú, Das. 36 ; and $u$ in âgu, passim in Mahâsamayasutta. The following instances deserve notice because they form their aorist in Skt. with s: aggahum, Mah. 25 , upatthcihum, Mah. 132, 256, randhayum Dh. v. 248, abhikkâmum, Mahâsamayasutta vi. 4; adakkhum, ib. vs. 3 correspoñds to adrâkshus.

The second and third sing. of the attan. in ase, attha, are influenced by the corresponding forms of the $s$ aorist in ise ittha (see later on). Examples are suyattha, Dh. 86, adatitha, Jât. ii. 166. Besides, we have the regular form in tha=Skt. ta for ị̣st. avocatha, Mah. 132, adassatha, Mah. 199, khîyatha Cariy. iii. 10, 1, passive ajâyatha, Mah. 24.

Mhase is also influenced by the $s$ aorist, and besides it is a present termination; instances are ahuvamhase, akaramhase, F. Jât. 13, 38 ; vaṇimhase, Jât. ii. 137 ; nimimhase, Dh. 417 ; Jât. ii. 369 ; the form of the imperfect mhasa occurs in akaramhasa, Dh. 147. The second pl . in vham corresponds to the Skt. dhvaṃ, the third in atthum is formed by false aualog.
from the sing. attha. Of these I have not found any instance in texts.

Brû forms abravi and abruvi, pl. abravum and abruvum.
From gâ we have a second pers. sing. $\hat{a} g \hat{a}$, Fausb. S. N. 161, corresponding to Skt. agâs, a third accagâ, upaccagâ and ajjhagâ, Dh., corresponding to agât. From stbâ a third person atthâ, Mah. 78.

From kar we have the regular forms, and besides an abridged aorist aka, Mah. 23, 37, corresponding to the vedic akar. Other forms of the same root will be given later on.

Labh forms an aorist alatthnm, Jât. i. 141 ; second pers. alattha or lattha, Dh. 240 ; third alattha $=$ alabdha (attan). The first and second pers. are formed after the analogy of the third.

The first sing. of the second formation is contracted from the Skt. isham, as in vedic îm; examples are abhâniṃ, Jât. iii. 394, from bhan, 'to speak,' adassim, Cariy. i. 2, from darç, 'to see,' udâtariṃ from tar, Jât..ii. 317 ; upägamiṃ, Jât. iii. 373 ; ovâdim, Br. xxvi. 4 ; we also bave a form in $i$ without the nasal aggahi, Jât. iii. 373 ; upâgami, Cariy. i. 195 ; nimmini, Cariy. ii. 6, 11 ; passive ajâyi, Cariy. iii. E, 1. Sumetimes we find issam with a double instead of a single $s$, as in sandhavissam, Dh. v. 153 (comp. Childers' Notes on Dhamm. 4, Trenckner, P. M. 56) ; nandissam, Jât. 432, vs. 9, and most probably titikkhissam, Dh. v. 320 ; some forms with a single $\delta$ are given by Oldenberg, K. Z. xxv. 320 : with change of $i$ to $a$ (Trenckner, p. 75), we have icchasam, S. N. vii. 14, vs. 1, 6 ; pamâdassam., M. N. 130 ; Ang. iii. 4, 6.

In the second pers. we have $i$ or $\hat{i}$ in poetry when a long syllable is required, as in âdiyi, Suttavibb. i. 44 ; kiandt̂, gilî,

Dh. v. 371 ; agami, Mah. 6. In the third person we have the same termination in $\hat{a} v i \tilde{n} j i$, Suttavibh. i. 127 ; vedî, Dh. v. 423 ; abhinimmi from abhinimmâti, Dh. 315 ; akari from kar, F Jât. 13 ; or a new form in isi, as agacchisi, Mah. 206; antaradhâyisi, Mah. 112 ; ajâyisi, Mah. 18, 20.

In the first pers. pl. we have imha $=$ ishma, as in sarimha, Dh. 188; labhima, Dh. 236 ; apâyimha, Jât. i. 360 ; in the second ittha $=$ ishṭa, as in saḍdhayittha, Dh. 123; dadittha, Dh. 238 ; and in the third $i m s u$ or isum $=$ ishus.

In the attanopada the second pers. ise as given by the grammarians, is not found in any text (just like ase of the first formation); we find instead ittho $=$ ishțhâs in atimaññttho, Ten. Jât. 40: asajjittho, Jât. i. 297 ; akkamittho, Bv. ii. 53 (always spelt with the dental group).

In the third pers. we have itth $a=$ ishṭa, as in pasârayittha, Jàt. i. 135 ; âsankittha, Jât. i. 151, and several passive forms given by Kacc. 289-293; comp. similar forms in the Mahâvastu, Senart's ed. p. 378.

In the first pers. pl. we have imhe; second, ivham; but these forms have not yet been found in any text. The third pl. terminates in imsu, isum, or in um, as upagacchum; Mahâparin. 21 (see above, p. 113).

The first sing. of the third formation terminates in the sim, as añ̃âsim, Pât. 95 ; cintesim, Dh. 206 ; or si, as cintesi, Cariy. i. 8, 1; ad́ảsi, Cariy. i. 9, 47 ; paccañ̃nâsi, M. I. 6, 27, 28, where the reading of the MSS. should be followed.

Second pers. si, as akâsi, Suttavibh. i. 44, with assimilation pativekkhi, M. vi. 23, 8, and third the same as adhosi, Fausb. S. N. 150 ; nimâsi, Mah. 27 ; avatthâsi, Suttavibh. i. 79, from avattharati, padhûpâsi, M. I. 15, 4, Suttavibh. ii. 109, 132. Udânesi, Jât. i. 141 ; with assimilation sakkhi. Jât. iii. 424 ;
aklocchi, Dh. v. 4 ; acchecchi, Buddha, 441 (spelt wrongly acchejji, ib. 434) ; from kar, akâsi = akârshît ; from har, vihâsi.

First pl. simha $=$ sishma in adâsimha, Jat. iii. 120; second sitth $a=$ sishṭa.

The third pl. in simsu is not found, but is replaced by a form in sum or msu, corresponding to Skt. sus, as in adamsu, pâliesuṃ, ârocesuṃ; from sthâ we have atthhamsu, Dh. 233, and ut!thimsu, Mah. 166; from jñâ, añ̃̃imsu, Jât. iii. 303; from khyâ, akkhamsu, Jât. iii. 481 ; from vâ, parinibbimsu, Dîp. 51 ; from dhâ, samâdahamsu, Mahâsamayasutta vs. 2; from kar, akaṃsu.

After the false analogy of the aorists in âsi we find also some aorists of verbs ending in a consonant, as agamâsi, pl. agumamsu (not agamamsum, which is a mistake of the Burmese MSS.); addasâsuṃ, Jât. ii. 256, and adussaṃsu, Papañca Sûdanî, ap. Alwis Introd. 73. Even the perfect âha, 'he spoke,' follows this inflexion, as we have ahaṃsu, Jât. i. 121, comp. âhamsus of the Mabâvastu ap. Minayeff, Pât. xliii. Another âhamsu is found in payirudâhamsu, 'they uttered,' from $\sqrt{ }$ har, comp. Weber, Hâla, 184 ; Ind. Streifen iii. 396.
The imperfect of the root $a s$, 'to be,' is entirely formed after the analogy of these aorists :

| âsim âsi. | âsimha. |
| :--- | :--- |
| âsi. | âsittha. |
| âsi. | âsimsu. |

The first pers. âsi occurs Cariy. i. 4, 1. For the third we find a form elii, Bv. xvi. 7, which looks like an abbreviation of the fut. of $i$, ehiti, but perbaps the reading is incorrect.

## Perfect.

Parassapada.
a. mha.
e. ttha.
a. u.

Attanopada.
$i$. mhe.
ttloo. vho.
ttha. re.

Verbs ending in consonants insert $i$ between the root and the consonatal terminations. Examp es are not very frequent: hâ, 'to leave,' forms jahâra, with a euphonic r, Kacc. 243; chid, ciccheda, ib. 242; budh, bubodha, Att. 203; suc, susoca, Att. 212; ah, âha, third pl. âhu ; vid, vidu, Mah. 141.

> Future

Parassapada.

| ssâmi. | ssâma. |
| :--- | :--- |
| ssasi. | ssatha. |
| ssati. | ssanti. |

Attanopada. ssam. ssamhe. ssase. ssavhe. ssate. ssante (ssare).

The termination am of the first sing. attan. is only an abbreviation of $\hat{a} m i$ in parassap. and occurs frequently in old texts as dassam, bhoklhaun, Das. 7, 29; hessam, pürayissam, Ten Jât. 91. This form is identical with the first sing. aorist according, to the second formation in issam, as sandhávissam, and this is the reason why they have often been mistaken one for the other.

The future may be formed from the root or from the special base. If it is formed from the root the terminations may be added directly, or by the auxiliary vowel $i$.
(a) Futures formed from the root directly : pacessati, Dh. 9 ; vicessati, Kacc. 27, both from ci $i$; vijessati, from $j i$, Dh. 9; dakkhati=drâkshyati, $\sqrt{ }$ darę, sakkhiti from çak; lacchati from labh Dh. $96=$ latsjati for lapsyati (comp. the aorist alattha for
alabdha), sambhossâma from bhû, Mah. 28 ; vacchâmi from vac Khuddasikkhâ 17 ; pavekkhati from vị̧, Mah. 153 ; checchaṃ from chid, Jât. iii. 500 (samucchissatha, Gr. 254, is formed after the false analogy of the other futures in issati) ; from $i$ we have esam. Jât. iii. 535, and upessam, Dhaniya S. Childers, s. v. upeti; from han, first pers. pl., hañchema, Jât. ii. 418, with an e, instead of $\hat{\alpha}$, that I cannot explain. Trenckner takes this and dakkihema, Mahâsamay, v. 25, as optatives of the fut., but this is without any analogy. Ảhañchi, M.i. 6, 8, Trenckner, P. M. 74; bhejjati, Ang. i. 5, 7, is most probably a mistake for bhecehati (like acchejji for acchecchi, above, p. 116).

The future is sometimes used in the sense of an imperfect, as dassâmi, Cariy. i. 3, 4; pariyesissâmi, Cariy. i. 6, 5; pavissâmi for pavisissâmi, from viȩ, Cariy. i. 9, 56 (pavissâmi as future occurs Jât. ii. 68). Perhaps these are only aorists with primary terminations like addasâmi (above, p. 112).
(b) Futures formed from the root by the auxiliary vowel $i$ : n̂gamissam, Jât. ii. 284 (and âgamicchati, Dh. ix. 12, formed after the false analogy of dicchati, if it is not merely a blunder); niggahissati, Dh. 96 ; samvasissare, in a passage of the A padâna, quoted in Oldenberg's Buddha, 419 ; labhissati, Dh. 121 ; naĥ̂ayissati from snâ; parinibbâyissati, Dh. 333, from parinirvâ and parinibbissam, $\mathrm{Bv} . \mathrm{xxvi}$. 23 , with loss of the root-rowel.
(c) Futures formed from the special base, mostly by the auxiliary vowel $i$ : $j$ inissati from $j i$, and cinissati from $c i$, Dh. 209 ; agacchissati, Dh. 84; passissati, Dh. 88, 89 ; pajahissati Dh. 311 ; pahinissati, Dh. 84 ; pâpunissati, Dh. 101 ; 'sunissâmi from çru, Jât. i. 129 ; paridadhassati, Dh. 115.

With $e$ in paridahessati, Dh. v. 9 ; niggahessâmi, Dh. v. 326 (see above, p. 101).
In the 2nd pers. sing., 3rd pers. sing. and pl. we find some-
times $i$, instead of $a$, most probably from the $y$ assimilated in the consonantal group, as sakkhiti for sakkhati, Sadda Niti sakkhinti, Dhaniya S.; dakkhisi, F. J. 23; dakkhinti, Mah. 83 ; M. j. $7,10$.

In some futures the sibilant has migrated into $h$, as kâhâmi for karshyâṃi, from kar, Cariy. i. 5, 9, Jât. i. 214; kâhati, Jât. ii. 443 (besides kassáma, Mah. 12 ; kassam in a modern text, I. O. C. 121); comp. kâhîti of the Mahâvastu Minayeff, 109 ; vilkihisi from vihar, Dh. 68 (besides vihassati, Aruṇavatisutta, v. 2) ; hâhasi, from hâ, Jât. iii. 172 ; pañ̃̄âayihinti, Jât. xvi. 1, 5 , from prajñ̂â, ehiti from $i$. From $h \hat{u}=$ bhû we have hohiti= bhoshyati and hehiti=bhavishyati which may be further contracted into heti.

A peculiarity of the Pâli is the double future formed from bases like dakkh by the ordinary termination issati. The base dakkh came to be used exactly like a present base as we see from the imperf. dakkim, Jât. i. 25 (which cannot be identified directly with the Skt. aorist adrâksham?); from the present dakkhati, frequent in later texts, from the inf. dakkhitum, M. v. 1, 2; dakkhitâye (not dakkhitâya), Mahâsamayas, vs. 1, and from the causative dakkhâpita, Mil. 119. So we get a secondary future dakkhissati, sakkhissati, Dh. 84; sukkhissati, from çush, 'to dry,' Db. 234; pavakkhissam from vac, Cariy. i. 1, 2, hehissati, Kacc. 249.

A curious form is dicchati, Jât. 450, vs. 7 (dicchati, 'to see,' Alwis, Introd. 42, evidently derives from dṛiç). Trenckner, P. M. 61, following Vanaratana derives it from adikshat, but the comm. explains it by dadanti. I think it is the desiderative of $d \hat{u}$ used as a new root with the meaning of the primitive verb, and this would speak in favour of Weber's explanation of dakkhati and dekkhati as desideratives (see Kuhn's Beitr. vii.

485 ff ., Indische Streifen xiv. 69 ff .). Childers and Pischel (Beitr. vii. 450 ff .) explain them as futures, P. and S. Goldschmidt derive them from the part. drishṭa with a change of sounds similar to that in dukkha $=$ duḥstha (see above, p. 39). The secondary base sukkh from çush (see the Causatives) speaks in favour of Goldschmidt's theory. As for pavecchati, Jât. i. 28, Mil. 375, I am unable to decide whether it is really the future of viç or, as Trenckner suggests, identical with payacchati.

## Conditional.

Parassapada.

| ssam, | ssamhû. | ssam. | ssamhase |
| :--- | :--- | :--- | :--- |
| sse, ssa, ssasi, | ssatha. | ssase, | ssarhe. |
| ssâ, ssa, ssati, | ssamsu. | ssatha, | ssimsu. |

With regard to the base the same rules apply to the conditional as to the future. Instances are, 1st pers. apapessam, Jât. ii. 11 (v. l. pîpeyyum) ; 2nd pers., bhavissa ib., agghîpessasi, Jât. ii. 31, v. J., for agghîpeyyîsi; 3rd pers., agamisssû, Kacc. 263; alabhissa, asakkhissa, Dh. 292; paññipessa, and abhavissati in a passage of Samyuttaka Nikâya Buddha, 443, where Oldenberg wants to change it into abhavissa. For the pl. I can adduce no instances from texts.

## Passive.

The passive is formed by adding the syllable $y a$, already mentioned as characteristic of the third class. This syllable may be added to the root or to the present base, as gacchîyati, Kacc. 236 ; and gamîyati, Dîp. 70, from gam, 'to go; vussati and vasîyati from vas, 'to dwell;' hâyati, Dh. v. 364, and hîyati, Kacc. 257, from há, 'to forsake;' gayhati and gheppati from
grah̆, 'to take;' tîyati from tan, 'to stretch,' Jât. iii. 283; Rûp. 37. About vuddhate from $v a h$, Kacc. 237 (see above, p. $\tilde{1}$ ).

The rules about the assimilation of $y$, which is optional, are given above, p. 48 ff .

The terminations of the passive are those of the attanopada and parassapada without any fixed rule.

An anomalous form of the passive is sussute, from çrı, 'to hear,' Indische Streifen, iii. 398.

## Causative.

Just as ya is the characteristic of the passive, aya is the characteristic of the causative (being the seventh class). The root is generally strengthened before this termination, as lâveti from lîu, 'to reap,' nâyeti from $n \hat{\imath}$, to lead,' gûhayati from guh, 'to hide,' butwe have also exceptions to this rule, as cudita instead of codita, M. iv. 16 ; bhaneti = bhâṇayati, gameti = gâmayati.

The second form of the causative with $p$ is much more frequent in Pâli than in Skt. It may be formed alnost from every root. Thus we have ĵ̂râpeti from jar, Jât. i. 238 ; bhimsâpeti (v. l. liṃsâpeti), from blı̂̂, Pât. 15 ; pimpsûpeti from pish, Mah. 175, besides pimseti, Jât. ii. 363 ; jinâpeti from $j i$ (present base jin), Kaccâyanabhedaṭ̂kâ, I. O. C., 91 ; sukkhâpeti, Dh. 188, from çush (secondary base sukk/, derived from the Part. çushka, in sulilchamâna, Jat. i. 304) ; upalâpeti from upal̂̂, M. v. 2, 21 ; Jât. ii. 266, comp. Rhys David's Buddhist Suttas, p. 5 ; suṇ̂peti, Dh. 166, from çru (present base sưn) ; cetâpeti from ci (through confusion with cit); chejjapeti from chid, Mil. 90; Ânapeti from ân̂̂. On the difference in the signification of the two forms of the causative comp. Oldenberg KZ. xxv. 323.

A causative with double $p$ is viñ̄napâpeti, from vijñâ,' to cause to be asked for,' Pàt. 105.

Pivati forms its caus. pâyati and pâyeti, gah : gâheti and gâhâpeti; han: haneti and ghâteti; sampiyâyamâna, Jat. i. 297, 361, ought to be corrected into sampiyamâna, according to Senart Mahâvastu, 556.

## Desiderative.

The desiderative is formed from the reduplicated root, by adding an $s$ : jighacchati from ghas, 'to eat,' sometimes written jigacchati (Grünwedel das sechste Kapitel d. Rûpasiddhi, p.70) ; jigucchati from gup; titikkhati from tij; cikicchati and tikicchati from kit ; pipâsati and pivâsati from pâ ; bubhukkhati from bhuj; sussusati from çru; dicchati from dâ (see above); jigimsati from har. IIan has a desiderative without reduplication, pahamsati, Jat. ii. 104 ; Pass. pahamsiyati, Mil. 326; vímamsati from man, is only a phonetical change for mimamsati.

## Intensive.

Intensives are also formed from the reduplicated root, and sometimes take ya, as daddallati = jàjvalyate; lâlapatti from lap; kâkucchati from kath, Jât. i. 61, 160, 318, Mil. 85 ; without $y a$, but with a nasal in the reduplication syllable, we have cankamati from kram; jangamati from gam, cañcalati from cal.

Sâkacchati, 'to talk,' Pât. xv. seems to be formed after the false analogy of kâkacchati without reduplication.

## Denominative.

Denominatives may be formed with and without reduplication. The terminations are the following :
(1) Âyati in pabbatâyati, samuddâyati, cicciṭâyati and ciṭiciṭ̂́-
yati, 'to splash,' M. vi. 27, 7, Mil. 258; dolâyati, Jat. ii. 385 ; tintiṇ̂yati, Jat. i. 243, 244 ; gaggarâaati, Mil. 3; verâyati, Dîp. 83 ; galagalâyati, Mabâparin, 48 ; pariyâyati, Samanta Pàsâd. 332 ; pattiyâyati, ' to believe,' Jât. i. 426, where Fausb. wrongly has adopted the reading saddhim yâyasi, comp. Trenckner, P. M. 79 ; harâyati, M. i. 63, 1; Suttavibh. i. 68.
(2) Iyati, îyati in the examples given by Kacc. 233, which I have not found in any text, and besides in patiseniyati, Fausb. S. N. 64 ; ganiyati, Mil. 114 ; attiyati, 'to be hurt,' M. i. 63, 1.
(3) Ayati, eti, in the examples given by Kacc. 235, which are not found in any text, and besides in bahheti from bahis, 'to remove,' Senart Mahâvastu, 431 ; yanteti, Jât. i. 418; vijaṭeti and vijatâapeti, 'to disentangle;' samodhâneti, 'to join,' part. samodhâinita, Jât. iii. 272 ; theneti, 'to steal,' Dh. 114, Jat. iii. 18.

For sammanneti, Ras. 69, we ought most probably to read sammanteť ( Dh .333 ), which is a denominative from mantra.
(4) ati in pariyosânati, 'to cease,' Dh. 331 ; sârajjati, 'to be ashamed,' Pât. xliv.; osanhati, 'to smooth,' C. v. 2, 3.

## § 19. Participles.

The present participle terminates in ant or anta, which is added to the present stem, e. g., labham or labhanto. About the declension of these participles and some other peculiarities, comp. p. 80. The same termination ant or anta is also used for the participle of the future, which, however, does not occur very frequently, e. g., karissum, Dâṭh. iii. 80.

In the attanupada we have the terminations mâna and $\hat{a} n a$ used almost without any difference from verbs of all classes,
the latter being more or less restricted to the ancient language. From kar we have the regular form kubbâna=kurvâna, Dh. v. 217, but also karậa in purekkharâna, Fausb. S. N. 173 ; kurumâna, Sam: Pâs., 323, and karamâna; from çî,' to lie down,' we have sayamâna, Kh. 16 ; from çush, 'to dry,' sukkhamâna, Jât. i. 304 ; from vas, 'to dwell,' vussamâna, Mah. 121 ; from as, 'to be,' samâna, Kacc. 258. A contraction takes place in sampajâno for sampajânâno from jñâ, 'to know,' Dh. จ. 293.

The old perfect participle in rams has almost totally disappeared ; a few remaining traces have been given above, p. 80 .

The past participle passive is formed by adding the terminatiuns $t a$ and $n a$ as in Samskṛit. These may be added to the root or to the present stem with or without the vowel $i$. From vas we have, according to Kacc. 291, vusita and vuttha, e. g., upavut!tha, Cariy. ii. 3, 2 ; parivuttha, Pât. 6 ; pavuttha, Mil. 205 ; vusitam brahmacariyam, 'the religious duties have been fulfilled,' a locution very frequent in canonical texts, e. g., M. v. 1, 18 ; besides vasita, Mah. 123, where we ought to read pabbajjâvasitat!lhâne and adhivattha, Dh. 165, 341, 392 (adhivuttha, Mahâparin. 23). From.jhash, 'to hurt,' we have jhatta, Mah. 146, Dh. 325, where the correct reading is châtakajjhattî. From pat, 'to fall,' we have patita but also patta in pattakikhandha, 'crestfallen,' Mil. 5, Ass. S. 17. From icchati, 'to wish,' we have it!tha (or yit!let after a word ending with a vowel) and icchita, which is wrongly given as a separate article by Childers. Dhî forms the regular participle hita; dlata, Mil. 238, Gr. 301 , M. vi. 25, 1, S. ii. 51, is most probably from dhrâ (see M. 38盲). Somewhat irregular is thata for khita from hhan, 'to dig,' Kace. 296, and the participles with $n$, where the Skt. drops it as bandha=baddha, Kacc. 130; pilandha, Mil. 337,
from $p i+n a h ;$ randha $=$ raddha, Mil. 107 ; parikanta $=$ parikritta, Suttavibh. i. 89 (but parikatta, Mil. 188).

Participles in $n a$ are somewhat more frequent in Pâli than in Skt. and in a few instances we find both forms from the same root, e. g., from dâ we generally have dinna, but also datta in atta=âdatta, Fausb. S. N. 150, 153, Dh. v. 406 ; from rud, 'to weep,' we have rodita, Ab. 165 and runna or ronna, Kb. 12, Das. 36, Jât. iii. 166, which is not an equivalent of rudana as Childers thought. From $l \imath$ we have sallina, 'depressed,' but also sallita, Cariy. iii. 11, 10. Jyâ forms jina, Suttaribhanga, i. 220, comp. Pâṇ. viii. 2, 44, schol. ; çâ, sina in saṃininapatta, S. N. 7. At v. 30 of the same Khaggavisâṇasutta we have saṃchinna, for which Senart Mahâvastu, 629, 630, gives the better reading samchanna from chard.

From this past participle passive is formed a secondary derivative by adding the suffixes vat or vin (the latter with lengthening of the $a$ ). This derivative has succeeded in its use to the lost past participle active in vams. Examples are vusitavanto, Mil. 104; hutavâ, hutââ, bhuttavâ, bhuttâv̂̂, Kacc. 281.

The participle of necessity is formed by adding the terminations tabba, tayya=tarya, aniya, ya. These terminations can be joined with or without the vowel $i$. Examples with $t a b b a \dot{a}$ are frequent enough: jinitabba, Db. 101; metabba, Kamm. 8; parijânitabba, Dh. 151 ; pativijjhitabba, Dh. 259 ; pariyâpunitabba, Alw. N. 23 ; tutthabba, Jât. i. 476 -tayya is, as far as I know, only given by grammarians. Anîya we have in karan̂iya; ya in sakkuneyya, Mab. 141, and in asaṃhira for asaṃharya, Dîp. 31.

## Infinitive.

The infinitive generally terminates in tum, as gantum, 'to go;' sunitum, 'to hear,' from the present stem, Mil. 91 ; sat!thum, Ten Jât. 104 ; thutum, from stu, 'to praise,' S. N. 38 ; putthum =prashṭum, 'to ask,' Parâbhavasutta, v. 1; parimetum from $m a ̂, ~ M i l . ~ 192 ; ~ j i n i t u m ~ f r o m ~ j i, ~ K a c e . ~ 319 ; ~ n i k h a ̂ t u m, ~ f r o m ~$ khan, Cariy. iii. 6, 16 ; from budh we have patisambuddhum and suboddhum, Kacc. 8. Besides we have also the ancient vedic terminations tave, tuye, and tâye, e. g., prhâtave, Dh. v. 34 ; niketuve, Jât. iii. 274; nidhetave, Jât. iii. 17; netave, Dh. v. 180 ; with tuye, ganetuye, Bv. iv. 28 ; marituye, Therîgâthâ, 165 ; with tâye, dakkhitâye, Mahâsamayasutta v. 1 ; jagghitâye, Jât. iii. 226.

A curious form of the infinitive is etase from $i$, Therîgâthâ, 151.

## Gerund.

The gerund is formed by adding the suffixes tvâ (tvâna and tûna) and ya. In Dhp. the use of $y a$ is restricted to compound verbs as in Skt., but later on it is also used for the single verb. Before these terminations the root generally appears in the same shape as in the infinitive. Examples are very trequent: tvâ in netvâ = nîtvâ (inf. netuṃ); chetvâ=chittvâ (inf. chettuṃ); bhutvâ=bhuktvâ, Jât. iii. 53 ; gantvâ = gatrâ (inf. gantum); jetvâ=jitvâ (inf. jetuṃ). From driç we have the anomalous gerund disvâ, where the $t$ is entirely lost ; dassitvâ, Suttavibhanga, ii. 64, should be changed into passitvâ. From hâ,'to forsake,' we have the reduplicated form jahetvâ, Dîp. 56, and jahitvâ, Dhp. 85, 333; from sthâ, uttiṭthitı â, Dh. 335 ; upatit-
thitvâ, Mil. 231. A contracted form is anuvicca = anuviditvâ (comm. jânitvâ), Jât. i. 459, Ang. ii. 2, 7, Fausb. S. N. xi.

Tvâna in passitvâna, Mah. 165 ; jahitvâna, Dh. 215 ; suṇitvâna, Das. Jât. 33 ; jinitvâna, Dh. 286; chetvâna, Dîp. 96 ; vatvâna, Dh. 193 ; daditvâna, Cariy. i. 9, 26 ; pavakkhitvâna, Mahàsamayasutta, 3. From the Skt. we can compare pîtvânaṛn, Pâṇ. vii. 1, 48.

Tûna in kâtîna or kattûna, Kacc. 310 ; Suttavibhanga, i. 96 ; âpucchitîna, Therîgâthâ, 165 ; chaddûna, ib. 169; nikkhamitûna, Theragâthâ, 11 ; sotûnaṃ; at the beginning of the Mabâvagga of the Dîghanikâya I. O. C. 69.
$\bar{Y} a$ in âhacca=âhritya (Skt. âhârya), in âhaccapâda, 'a sort of bed,' frequent in the Vinaya; âhacca=âhatya from han, Mah. 45, Kacc. 302 ; upahacca=upahatya, ib., uhacca, Mahâsamayasutta, v. 3 , abbuyha from â + brịh, Dh. 255 ; nikacca $=$ nikritya, Suttavibhanga, i. 90 ; and most probably also patigacca $=$ pratikritya, with softening of the $k$, comp. Trenckner, Mil. 421 ; paticca=pratîtya, but adhicca I prefer to derive with Childers from adhiritya, answering to Skt. adhârya. Cicca, Khuddasikkhâ aud sañcicca, Pât. 3, 66, Suttavibhanga, i. 73, most probably stand for cintya=cintayittâ (comm. jânanto) From $i$ we have anvâya, frequent in Dh. formed after the false analogy of mâya from $m i$; from grah, samuggahâya, 'having embraced,' Fausb. S. N. 152.

Sometimes the termination $y a$ of the gerund is dropped and
 known;' pațisaǹkhâ for paṭisañikhâya, 'having reflected,' anupâdâ for anupâdâya, Dîp. 15.

In a few cases we find a gerund with double suffix combined from $y a$ and tvâ, e. g., aibhiruyhitvâ for abhiruyha, Kacc. 129;
ogayhitvâ for ogayha, Mah. 261; saịihitvâ from sad, Bâlâvatâra, s. 58.

The suffix tum of the inf. can be used also for the gerund, but this use seems to be limited to a few verbs. In the Pâțimokkha we have a gerund, abhihatthum from har, which agrees exactly with the corresponding Jaina forms puraükâuṃ and gantụ̣ (see my Beiträge zur Gramm. d. Jaina Prâkrit, p. 61). From Rhys David's and Oldenberg's note, Vinaya Texts, ii. 400, it appears as if they wanted to identify this form with those in tvâna and tûna like nikkhamitûna; we learn, however, from Hem. ii. 146, that in abhihatthum and the corresponding Prâkrit forms, the suffix of the inf. is used instead of the gerund. A similar form, distinguished only by the loss of the anusvâra is daṭthu=drashṭuṃ, 'having seen,' parallel with disvâ, S N. 73, Theragâthâ, 48. The corresponding Prâk. form is given as daț̣huṃ by Hem. l. l.; but we have also in Jaina Prâk. forms without anusvâra, as kațtu and haṭtu from kar and har.

As an exercise for the student, I give the text of a Jâtaka, with a literal translation, and complete analysis of the words:-

## VALÂHASSAJÂTAKA.

(Fausböll's edition, vol. ii., p. 127, ff.)
Atîte Tambapaṇnidîpe Sirîsavatthun nâma yaklkhanagarạ̣ ahosi. Tattha yakkhiniyo vasimsu. Tî bhinnanâvânam âgatakâle alaṃkatapaṭiyattâ khâdaniyam bhojaniyam gâhâpetvâ dâsigaṇaparivutâ dârake aṃkenâdâya vâṇije upasaṃkamanti. Tesaṃ manussavîsam âgat' anĥ̂ 'ti san̄jânanattham tattha tattha kasigorakkhidini karonte manusse gogane sunakhe ti
evam âdini dassenti vânïjânam santikam gantvâ " imaṃ yâgụ̣ pivatha bhattaṃ bhuñjatha khâdaniyam khâdathâ" ti vadanti. Vânijâ ajânantâ tâhi dinnaṃ paribhuinjanti. Atha tesaṃ khâditvâ bhuñjitvâ vissamitakâle paṭisanthâram karonti. "Tumhe katthavâsikik kuto âgatâ kaham gacchissatha kena kammena idhâgat' atthâ 'ti pucchanti " bhinnanâvâ hutvâ idhâgat' amhâ" $t i$ vutte ca " sâdhu ayŷ̂ amhûkkam pi sâmikânam nâvam abhirûhitvâ gatânam tîni saṃvaccharâni atikkantâni te matâ bhavissanti, tumhe pi vânịjâ yeva mayam tumhâkam pâdaparicârikâ bhavissâmâ" ti vatvâ vatvâ te vânỉe itthikuttabhâvavilâsehi palobhetvâ yakkhanagaraṃ netvá sace pathamagahitâ manussâ atthi te devasaṃkhalikâya bandhitvâ kâranaghare pakkhipanti. Attano vasanatthâne bhinnanâvamanusse alabhantiyo pana parato Kalyânị̣ orata Nâgadîpaṃ ti evaṃ samuddatîraṃ anuvicaranti, ayam tâsam dhammatâ. Ath' ekadivasam pañcasatâ bhinnanâvâ vânijâ tâsam nagarasamîpe uttariṃsu. Tî̀ tesam santikaṃ gantvâ palobhetvâ yaklchanagaram anetvâ pathamagahitamanusse devasamkhalikâya bandhitvâ kâraṇaghare pakkhipitvô jetthakayakkhin̂̂ jetthakavânỉjam sesî sese ti tâ pañcasatâ yakkhiniyo te pañcasate vânije attano sâmike akamsu. Atha sâ jetthayakkhinî rattibhâge vânije niddaṃ gate utṭhâya gantvâ kâranaghare manusse mâretvâ mamsaṃ khâditvâ âgacchati. Sesâpi tath' eva karonti. Jetṭhayakkhiniyâ manussamamsam khâditvâ âgatakâle sarîraṃ sîtalạ̣ hoti. Jetṭhavânịio parigaṇhanto tassâ yakkhinibhâvaṃ ñatvâ "imâ pañcasatâpi yakkhiniyo bhavissanti, amhehi palâyitum vaṭtatîti' " punadivase pâto va mukhadhovanatthâya gantvâ sesavânijânaṃ̂ârocesi: imâ yakkhiniyo na mânusiyo, añ̃esam bhinnanâvânaṃ âgatakâle te sâmike katvâ amhe khâdissanti, etha amhe palâyâmâ" ti tesu aḍḍhateyyasatâ " mayạ̣ etâ vijahitum na salkkhissâma, tumhe gacchatha. mayạ̣ na palâyissâmâ" ti
âhamsu. Jetṭhavânijo attano vacanakare addhateyyasate gahetvâ tâsaṃ bhîto palâyi. Tasmiṃ pana kâle Bodhisatto valâ hassayoniyaṃ nibbatti, sabbaseto kâkasîso muñjakeso iddhimâ vehâsamgamo ahosi. So Himavantato âkâse uppatitvâ Tambapannidîpaṃ gantvâ tattha Tambapaṇisare pallale sayaṃâtasâliṃ khâditvâ gacchati, evaṃ gacchanto va "janapadaṃ gantukâmâ atthi janapadaṃ gantukâmâ atthîti" tikkhattuṃ karunâya paribhâvitam mânusivâcam bhấati. Te tassa vasanaṃ sutvâ upasaṃkamitvâ añjaliṃ paggayha " sâmi mayaṃ junapadạ̣ gamissâmâ" ti âhaṃu. "Tena hi mayhaṃ piṭthị̣ abhirûhathâ" ti. Ath' ekacce abhirûhiṃsu ekacce vâladhiṃ gaṇhimsu ekacce añjaliṃ paggahetvâ aṭthamsu yeva. Bodhisatto antamaso añjalim paggahetvâ thite sabbe pi te addhateyyasate vânije attano ânubhâvena janapadaṃ netvâ sakasakaṭthânesu patiṭ!hâpetvâ attano vasanatthânam agamâsi. Tápi kho yakkhiniyo añ̃̃esaṃ âgatakâle te tattha ohînake aḍhateyyasate manuşe vadhitvâ khâdiṃsu.

## Translation.

In former times there was in the island of Larkâ a Fakkha city called Sirîsavatthu. Therein dwelt Yakkhinîs. These, whenever a shipwreck took place, in splendid clothing, taking soft and hard food, surrounded by female slaves, carrying children on their hips, went to meet the merchants. That they might think "We have come to an abode of men," they would show here and there men ploughing and tending cattle and so forth, herds of cattle, dogs, etc., and approaching the merchants they would say, "Drink this rice gruel, partake of this rice, eat this food." The merchants, unawares, enjoy what is given by them. Thus having eaten and enjoyed, while resting, they excbange friendly greetings. They ask: "Where do you
live ? whence do you come? whither are you going? on what business have you come hither?" They answer: "We have come hither, having been shipwrecked." [Then the Yakkhhinîs say]: "Well, sirs, three years have passed since our husbands went on board ship and went away; they must be dead ; you are also merchants, we will be your servants." Thus they enticed those merchants with female blandishments, and leading them to the Yakkha city, the first men being captured, haring bound them as it were with supernatural chains, they hurry them into the abode of destruction. If they do not obtain shipwrecked men near their own place of abode, they wander along the sea-shore as far as Kalyâni on the other side, and Nâgadîpa on this side, and this is their custom. On a certain day, 500 merchants came to their city. The females approaching them, enticed them, and bringing them to the Yakkha city, binding the men whom they first captured as with supernatural chains, they hurried them into the abode of destruction. The first Yakkhinî took the chief merchant, the others the remainder, and so the 500 Yakkhinîs made the 500 merchants their husbands. Then the chief Yakkhinî in the night time, when the merchants had gone to sleep, rising, goes to the abode of destruction, and, killing men, eats their flesh, and returns. The others do likewise. When the chief' Yakkhinî returned, after having eaten the human flesh, ber body was cold. The chief merchant, having embraced her, knew that she was a Yakkhinî, and thought: "These must be 500 Yakkhinîs; we must escape." On the morrow, in the early morning, on going to wash his mouth, he told the other merchants: "These are Yakkhinîs, not human beings; when other shipwrecked men come, they will make them their busbands, and devour us. Shall we not flee? But 250
said: "We are unable to leave them; you go; we sball not flee." The chief merchant, having persuaded the 250 by his advice, fled, terrified at the females. Now at that very time the Bodhisattva was born from the womb of a mare; be was pure white, black-headed, muñja-baired, possessed of supernatural power, being able to go through the air. Rising through the air from the Himavanta, he went to the isle of Tambapaṇni, and having eaten paddy, produced spontaneously in the lakes and ponds of Tambapaṇni, he went on, and thus proceeding, said compassionately three times in a well modulated human voice: "Does any person wish to go? Does any person wish to go? They, hearing the speech, came near with folded hands, and said: "Sir, we folk wish to go." "Then get upon my back," said he. Then some got on his back, some seized his tail, but some stood with folded bands. Bodbisatta, by his own supernatural power, conveying all the 250 merchants, even those standing with folded hands, placing each in his own place, returned to his own abode. But the Yakkhinis, when the time of the others had come, killed the remaining 250 , and ate them.

This story is another version of the well-known myth of the Sirens, as was pointed out for the first time by Dr. Morris, in the "Academy" of Aug. 27, 1881 (reprinted in the "Indian Antiquary " for October, 1881, pp. 292-3).

Atîte, 'in former times,' loc. sing. of the past part. of $i$, 'to go,' with ati.

Tambapanniaıpe, 'in the island of Ceylon,' = Tâmraparnidvîpe, loc. sing., tâmraparṇi literally means 'copper leaf,' most probably trom the colour of the soil in the island. Ceylonwas
called the 'Island of the Demons,' as can be seen from Senart "La Légende du Bouddha," p. 272, et seq. Allusion is made to this myth also in the Lalitavistara, p. 196, ed. Calc.:

Laghu gagane vrajase kripajâto râkhasadvîpam.
Vyasanaçata manujân tada gṛhya kshame sthapesi.
Sirîsavatthun (v. l. ${ }^{\circ}$ vatthu) nom. sing. of a neuter $u$-stem About the locality of this fabulous town nothing is known to me.

Nâma, nom. sing. of a neuter $n$-stem.
Yakkhanagaram, nom. sing. of a neuter $a$-stem.
Ahosi, 3rd. pers. sing. Aorist of $b h \hat{u}$ or $k \hat{u}$, 'to be.'
Tattha=tatra, ' there,' adverb of place.
Yakkhiniyo, nom. pl. of yakkhinit, 'a female yakkha.'
Vasimsu, 3rd. pl., aorist of vas, 'to dwell.'
Tâ, nom. pl. fem. of the demonstr. pronoun.
Bhinnanâvinaụn, gen. pl. of a bahuvrîhi compound from bhinna and nâvâ, 'ship.' Blinna is the past part. pass. of bhid, 'to break,' and the whole compound means 'shipwrecked.'

Ágatakîle. Ágata is past part. pass. from $\hat{a}+$ gam, 'to go,' and kîlle, loc. of kâla, 'time.'

Alamkatapatiyattâ, a compound of two past participles. Alamkata=Skt. alamkrita, 'adorned, embellished,' from alam + kar. Patiyatta from prati+yat, 'to prepare, to dress.' The whole compound stands in the nom. pl. f.

Khadaniyam, acc. sing. n. of the part. of necessity of $\sqrt{ }$ khatl, ' to eat.' It means literally, 'that can be chewed,' i.e., 'solid food.'

Bhojaniyam, acc. sing n. of the part. of necessity of $\sqrt{ }$ bhuj, ' to eat,' means, in opposition to khâdaniyam, 'soft, or wet food,' as boiled rice, etc.

Gâhâpetvâ, gerund of the causative of $\sqrt{ }$ gah, 'to take,' lit. ' to eause to be taken.'

Dâsiganaparivuṭ̂a, nom. pl. f., parallel to alaṃkatapaṭiyattâ. Dásigana, 'a troop of female slaves,' parıvuta, past part. pass. of pari + var, 'to surround.'

Dârake, acc. pl. of dâraka, 'child.'
Aṃkenâdâya. Aṃkena, instr. sing. of aṃka, 'hip,' âdâya, gerund of $\hat{a}+d \hat{a}$, 'to take.' The whole means 'having taken on the hip.'

Vânije, acc. pl. of vâmija, 'merchant.'
Upasaṃkamanti, iii. pl. pres. of upa+saṃ+kram. 'to approach.'

Tesam, gen. pl. m. of the demonstr. pronoun.
Manussavâsam; acc. sing. of manussa, 'man,' and vâsa, 'dwelling.'

Agat' stands in sandhi for âgatâ, nom. pl. of the past part. of $\hat{a} \not \subset \mathrm{gam}$ (see above, âgatakale).

Amh $\hat{a} t i$ stands in sandhi for amha iti. Amha is 1st pers. pl. pres. of the verb subst. as. Iti is gecerally used after a quotation.

Sañjânanattham, composed from sañjânana, 'perceiving,' and the acc. of attha, 'purpose.' It means 'for the purpose of perceiving.'

Tattha, tattha, see above. The repetition is distributive, 'here and there.'

Kasigorakkhâdîni, kasi=krishi, 'ploughing,' gorakkhâ, 'cowkeeping ;' $\hat{d} \hat{i}^{\prime}{ }^{n} i$ is the neuter pl . of $\hat{a} d i$, 'etc.' The whole compound is an acc. dependent from the following karonte.

Karonte, acc. pl. m. pres. part. of kar, 'to make.' This belongs to manusse and depends from dassenti.

Manusse, acc. pl. of manussa, 'man.'

Gogane, acc. pl. 'herds of cattle.'
Sunakhe, acc. pl. of sunakha, 'dog.'
$T i=i t i$, see above.
Evam, particle, 'thus.'
$\hat{A} d \hat{i n i}$, acc. pl. n. of $\hat{a} d i$, 'etc.'
Dassenti, 3rd pers. pl. pres. caus. of darȩ, 'to see.'
Vânijânam, gen. pl. of vânija, ‘merchant,' dependent from santikam.

Santikam, acc. of sa+antika, 'near.'
Imam, acc. sing. f. of the demonst. pronoun.
Yâgum, acc. sing. of yâgu=yavâgu, 'rice-gruel,' a fem. $u$-stem.

Pivatha, 2nd pers. pl. imp. of pibati, ' to drink.'
Bhattam, acc. sing. of bhatta $=$ bhakta, 'boiled rice.'
Bhuñjatha, 2nd pers. pl. imp. of bhunjati, 'to eat.'
Khâdaniyam, see above.
Khâdatha, 2nd pers. pl. imp. of khâdati, 'to eat.' The long $\bar{a}$ is the crasis, as in amh $\hat{a}$, above.

Vânijâ, nom. pl. of vânija.
Ajânantâ, nom. pl. of the pres. part. of jñâ, 'to know,' with a privativum, ' not knowing.'

Tâhi, instr. pl. f. of the demonstr. pronoun.
Dinnam, acc. sing. past part. of dâ, 'to give.' The substantive is understood.

Atha, particle, 'then.'
Khâditvâ, gerund from khâd.
Bhuñjitvâ, gerund from bhuj.
Vissamitulaâle, similar to âgatakâle, above. Vissamita, past part. from $v i+$ çram, 'to rest.'

Paṭisañthâram, acc. sing. of a masc. $a$-stem.
Karonti, 3rd pers. pl. pres. of kar.

Tumhe, nom. pl. pers. pronoun, 2 ad pers.
Katthavâsika, nom. pl. of compound from kaitha=kutra, ' where,' and vâsika, 'living.'

Kuto =kutas, ' $w h e n c e . '$
Agat $\hat{a}$, nom. pl. of âgata, see above.
Kaham, interrog. particle, 'where, whither.'
Gacchissatha, 2nd pers. pl. fui. of gacch, the present stem of gam, 'to go.'

Kena kammena, instr. sing. of the interrog. pronoun and kamma $=$ karman, 'business.'
$\cdot$ Idhâgat' $=$ idha + âgatâ.
Attha, 2nd pers. pl. pres. of as, 'to be.'
Pucchanti, 3rd pers. pl. pres. of pucch, 'to ask.'
Bhinnanâvâ, nom. pl., see above.
Hutvâ, gerund of $b h \hat{u}$ or $h \hat{u}$, 'to be.'
Vutte, locative absolute of the past part. of vac, 'to speak.'
$C a$, 'and,' copulative particle.
Sâdhu, neuter adjective, 'well.'
Ayyâ, voc. pl. of ârya, 'sir.'
Amhâkam, gen. pl. personal pronoun, 1st pers.
Pi $=a p i$, 'also.'
Sâmikânam, gen. pl. of sâmika, 'husband.'
Nâvam, acc. sing. of nâvâ, 'ship.'
Abhirûhitvâ, gerund of abhiruh, 'to mount.'
Gatânam, gen. pl. of gata. This belongs to sâmikânaṃ and depends from tîni samvaccharâni atikkantâni.

Tini, nom. pl. n. of the numeral stem $t i$, 'three.'
Samvaccharâni, nom. pl. of a neuter $a$-stem.
Atikkantâni, nom. pl. n. past part. of ati + kram, 'to go beyond, to pass.'

Te, nom. pl. m. demonstr. pronoun.
Matâ, nom. pl. past part. of mar, 'to die.'
Bhavissanti, 3rd pers. pl. fut. of bhû, 'to be.'
Tumhe, see above.
Yeva in Sandhi for eva.
Mayam, nom. pl. pers. pronoun, lst pers.
Tumhâkam, gen. pl. pers. pronoun, 2ud pers., see above, amhâkaṇ.

Pâdaparicârikâ, nom. pl. f. from pâda, 'foot,' and paricârika, ' servant.'

Bhavissâma, 1st pers. pl. fut. of blû.
Vatvâ, gerund from vac, 'to say.'
Itthikuttabhâvavilâsehi, compound from $i t t h i=$ strî, ' woman,' kutta of unknown etymology, most probably synonymous with the following vilâsa, 'charm, beauty.' The whole stands in the instr. pl.

Palobhetvâ, gerund of the caus. of pra+lubh, 'to seduce.'
Yakkhanagaram, the acc. to denote the direction, 'to the Yakkba city.'

Netrâ, gerund of $n \hat{\imath}$, 'to lead.'
Sace, conjunction. 'if.'
Pathamagahitâ, from pathama, 'first,' and gahita = gṛihîta, past part. of grah, 'to take.' The whole stands in the nom. pl.

Atthi, 3rd pers. sing., instead of the plural.
Devasamkhalikâya, from deva, 'god,', and samkhalikâ=ç̣inkhala, 'a chain.' The whole is a tappurisa compound, and stands in the instr. case.

Bandhitvâ, gerund from bandh, 'to bind.'
Kâranaghare, loc. of kârana, ' destruction,' and ghara=griha, ' house.'

Pakkhipanti, 3rd pers. pl. pres. of pra + kship, 'to throw.'

Attano, gen. sing. of attâ=âtman, 'self.'
Vasanaṭthâna, loc. of vasana, 'dwelling,' and sthâna, 'place.'
Alabhantiyo, nom. pl. f. of the pres. part. of labh, 'to obtain,' with a privativum.

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\text { Pana }=\text { punar, 'again.' }
$$

Parato and orato, abl. sing. of para, 'further,' and ora, 'hither.'

Kalyânim and Nâgadîpaṃ, acc. of direction. Kalyâṇi must be the modern Kaelani on the Kaelani Gangâ, about six miles from Colombo, where there is a celebrated Buddhist temple. Nâgadipa is most probably identical with the Naggadipa of the Mahâvamsa (p. 46), which island Vijaya is said to have touched on his way from Bengal to Ceylon, but nothing can be made out about the situation of this island.

Samuddatîram. acc. from samudda, 'the sea,' and tîra, 'the shore.'

Anuvicaranti, 3rd pers. pl. pres. of anu $+v i+c a r$, ' to wander along.'

Ayam, nom. sing. f. of the demonstr. pronoun.
Taisam, gen. pl. f. of the demonstr. pronoun ta.
Dhammatâ, 'occupation,' f. $\hat{a}$-stem.
Ekadivasam, from eka, 'one,' and divasa, 'day.' Acc. to denote time.

Pañcasatâ, nom. pl. of pañca, 'five,' and satam, 'hundred.
Nagarasamîpe, loc. of nagara, 'town,' and samîpa, 'neigh. bourhood.'

Uttarimsu, 3rd pers. pl. aorist from ut+tar, 'to cross over.' Gantvâ, gerund from gam, 'to go.'
Ánetvâ, see netvâ, above.
Pakklhipitvâ, geruud from pra + kship.
Jetthakayakkhinî, 'the chief or first Yakkhinî.'

Sesâ, nom. pl. f. and sese, ace. pl. m. of sesa, 'other.'
Vânije and sâmike, acc. pl.
Akamsu, 3rd pers. pl. aorist from kar.
Rattibhâge, loc. to denote time.
Niddam, acc. of niddâ, 'sleep,' to denote the direction, dependent from gate.

Gate, acc. pl. belongs to vânije.
Uttthâya, gerund from $u t+$ sthâ, ' to get up.'
Mâretvä, gerund of the caus. of mar, means 'to kill.
$\hat{A g a c c h a t i}, 3 \mathrm{rd}$ pers. sing. pres. of $\hat{a}+$ gacch.
Jetthakayakkhiniya, gen. sing. dependent from sarîram.
Manussamamsam, acc. ' human flesh.'
Sîtalam, neuter adjective.
Sariram, nom. of a neuter $\alpha$-stem.
Hoti, 3rd pers. sing. pres. of $b h \hat{u}$ or $h \hat{u}$.
Pariganihanto, nom. sing. of a pres. participle, from pari + grab, 'to embrace.'

Tassâ, gen. sing. f. demonstr. pronoun.
Yakkhinibhâvam, acc. 'quality of a Yakkhinî.'
Natvâ, gerund from jñâ, ' to know.'
Imâ, nom. pl. f. demonstr. pronoun.
Bhavissanti, 3rd pers. pl. fut. of bhû.
Amhehi, dat. pl. pers. pronoun, 1st pers.
Palâyitum, inf. of palâyati, ' to flee.'
Vattati, 3rd pers. sing. pres. of vart, 'it behoves, it is right.'

Punadivase, l. of puna, 'again,' and divasa, 'day,' means, 'on the next day.'

Pâto = prâtar, ' early.'
$\nabla a$ for eva with the initial $e$ elided after a long vowel.
Mukhadhovanatthâya, compound of mukha, 'mouth,' dhovana,
'washing,' and attha, ' purpose,' the whole in the dat. to denote the intention.

Sesavainijânam, gen. pl. used instead of the dat. dependent from ârocesi.

Arocesi, 3 rd pers. sing. aor. from $\hat{a}+$ ruc, 'to tell.'
Mânusiyo, nom. pl. of mânun̂̂, the f. of mânusa, 'man.'
Añíesam, gen. pl: m. of añnu, formed according to the pronominal inflexion.

Amhe, acc. pl. m. of the pers. pronoun, 1st pers.
Khudissmnti, 3rd pers. pl. fut. of kihâd.
Ethu, 2nd pers. pl. imp. of $i$, ' to go.'
Amhe, nom. pl. m. of the pres. pronoun, 1st. pers.
Palâyâma, 1st. pers. pl. imp. of palâyati.
Tesu, loc. pl. m. demonstr. pronoun.
Aḷ!lhateyyasatâ =ardhatritîyaçatâh, literally, ' the third hundred half,' a very common way of expressing the number 250 .

Etâ, acc. pl. f. demonstr. pronoun.
Vijahitum, inf. of $v i+h \hat{a}$, 'to forsake.'
Salkklissîma, 1st pers. pl. of çak, 'to be able,' with the double fut. suffix, see p. 119.

Tumhe, nom. pl. m. pers. pronoun, 2nd pers.
Gacchatha, 2nd pers. pl. imp. of gam, 'to go.'
Palâyissîma, 1st pers. pl. fut. of palîyati.
Ahamsu, 3rd pers. pl. aorist of alh, 'to say.'
Vacanakare, loc. sing. of vacana + Kara.
Addhateyyasate, acc. pl.
Gahetvê, gerund of grah, 'to take.'
Tâsum, gen. pl. f. demonstr. pronoun.
Bhito, past part. of $6 h i$, , to fear.'
Palâyi, 3rd. pers. sing. aor.
Tasmin, loc. sing. m. demonstr. pronoun.

Pana $=$ punar, 'again.'
Bodhisatto, nom. sing.
Valâhassayoniyam, compound from valâha, 'cloud,' assa, ' horse,' and yoni, 'womb.' The whole stands in the loc. sing.

Nibbatti, 3rd pers. aor. of nis + vart, 'to be born.'
Sabbaseto = sarvaçveta, ' all white.'
Kâkasisso, literally, ' crow-headed.'
Muñjakeso, 'with hair like the munja,' a certain sort of grass.

Iddhim $\hat{a}=$ riddhimant, nom. sing. of a stem in ant.
Vehâsamgamo, nom. sing. of vehâsa=vihâyasa, 'the open air,' in the acc. case, and gamia, verbal adjective of gam, 'to go.'

So, nom. sing. m. of the demonstr. pronoun.
Himavantato, abl. sing of Himavanta, 'the Himâlaya,' with suffix $t o$.
$\hat{A} k \hat{u} s e$, loc. sing. of $\hat{a} k a ̂ s a$, 'the sky.'
Uppatitvâ, gerund from $u d+$ pat, ' to rise.'
Tambapannidîpam, acc. of direction.
Sare and pallale, are loc. sing. of sara $=$ saras. 'the pond,' and pallala, = palvala, 'the pool.'

Sayamjâtasâlim, acc. sing. of sayam=svayam, 'self,' jâta, past part. from jan, 'to produce,' and sâli, 'rice.'

Janapadam, acce. of direction. Janapada is a compound from jana, 'people,' and pada, 'place.'

Gantukâmâ, nom. pl. of gantu, inf. of gam, 'to go,' and kâma, ' wishıng.'

Atthi stands for the plural. The whole sentence is a question.

Tikkhattum = trishkritras, numeral adverb, 'three times.'
Karunâya, instr. sing. of karuṇ̂a, 'mercy,' a fem. $\hat{a}$-stem.

Paribhâvitam, acc. sing. f. of the past part. caus. of pari $+b h \hat{u}$, ' to surround.'

Mânusivâcam, acc. sing. of the f. of mânusq, 'human,' and vâc, 'speech.'

Bhâsati, 3rd pers. sing. pres. of bhâsh, 'to speak.'
Tassa, gen. sing. m. demonstr. pronoun.
Vacanam, acc. sing. of a neuter $a$-stem.
Sutva, gerund of çru, 'to hear.'
Upasamkamitvâ, gerund of upa + saṃ + kram, 'to approach.'
Añjalim, acc. sing. of a m. $i$-stem.
Paggayha, gerund of pra + grah, 'to stretch forth.'
Sâmi, voc. sing.
Gamissâma, 1st. pers. pl. fut. ot gam.
Mayham, dat. instead of gen. sing. of the pers. pronoun, 1st pers.

Pitthim, acc. of $p i t t h \hat{\imath}=$ prishṭba, 'back.'
Abhirûhatha, 2nd pers. pl. imp. of $a b h i+r u h, ~ ' t o ~ a s c e n d . ' ~$
Ekacce, nom. pl. of ekacca=ekatya (see above, p. 49), formed according to the pronominal inflexion.

Abhirûhimsu, 3rd pers. pl. aorist of $a b h i+r u h$.
Vâladhim, acc. sing. of a m. $i$-stem.
Gaṇhimsu, 3rd pers. pl. aorist of grah.
Atṭhamsu, 3rd pers. pl. aorist of sthâ, 'to stand.'
Antamaso, abl. of the superlative antama, 'the last,' formed with the suffix ças (see p. 68).

Thite, acc. pl of $t$ thita, past. part. of sthâ.
Anubhâvena, instr. sing. of a m. $a$-stem.
Sakasakaṭthânesu, compound from saka=svaka, 'own,' and thâna, 'place.' The repetition of saka is distributive.

Patit!hâpetvâ, gerund of the caus. of prati+sthâ, 'to establish.

Agamâsi, 3rd pers. sing. aorist of gam.
Tâpi=tâ api.
Kho = khalu, 'indeed.'
A $\tilde{n} \tilde{n}$ esam, gen. pl. m. of añna, according to the pronominal inflexion.

Ohinake, acc. pl. of the past part. of $a v a+h \hat{u}$, 'to forsake,' with the secondary suffix $k a$.

Vadhitvâ, gerund of vadh, 'to kill.'

